national

SAFETY NEWS

NOVEMBER 1935

TWO SECTIONS-

SECTION 1

★

★

Season for Thanksgiving

★

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M-S-A WINTER LINER ZIPPER-TYPE

Earlugs can be zipped on or off the skullcap as needed. Made of lined, water-repellent Grayfall Cloth, this liner fits snug to head, keeps out drafts, moisture. Available in two sizes and designed to accommodate laced or snap-in suspensions of all M-S-A Hats and Caps. Write for details.

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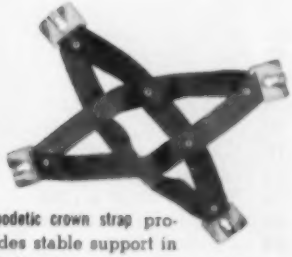

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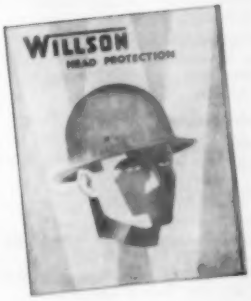

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national Vol. 72, No. 5

SAFETY NEWS

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NOVEMBER 1955

COVER sketch by Bill O'Malley

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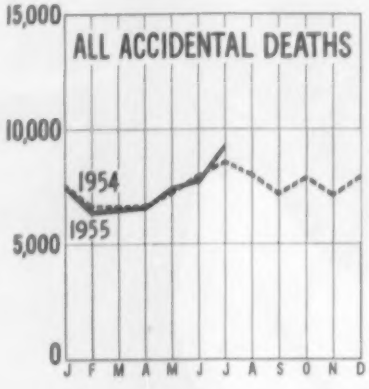
THE ACCIDENT BAROMETER

Prepared by the Statistics and Research Division, National Safety Council

ACCIDENTAL DEATHS in July numbered approximately 9,200, an increase of 7 per cent over July a year ago. Aside from a small reduction in work accident fatalities, all classes showed some increase over 1954.

During the first seven months of 1955, accidental deaths totalled 51,100, a negligible change from last year. Decreases in deaths from home and public non-motor-vehicle accidents were offset by an increase in motor-vehicle fatalities. Deaths from work accidents numbered about the same as in 1954.



	1955	1954	Change
July	9,200	8,600	+7%
Seven Months ...	51,100	51,300	0

Motor-Vehicle Deaths

The July total of motor-vehicle deaths was 3,340, an increase of 11 per cent over 1954 and 5 per cent over 1953.

Deaths for the seven months numbered 19,840, or 4 per cent above the 1954 total of 19,150. The seven-month death rate per 100,000,000 vehicle miles was 5.8, a reduction of 3 per cent from the 1954 comparable rate of 6.0.

For seven months, 13 states had fewer deaths than in 1954, 1 had the same number and 34 had more deaths. Reporting cities with populations of more than 10,000 had an increase of 2 per cent for July but a reduction of 1 per cent for the seven-month period.

Regional changes from 1954 in the seven-month death totals were:

North Atlantic	+8%
South Atlantic	+9%
North Central	+2%
South Central	+4%
Mountain	—3%
Pacific	+2%

Work Accidents

Deaths from work accidents numbered 1,200, or 100 fewer than in July last year. The total for seven months was 7,900 — no change from 1954.

The July frequency rate for plants in community council contests was 5.04, a decrease of 18 per cent from last year. The July rate for plants in 16 sectional accident prevention contests conducted by the National Safety Council was 5.84, an increase of 4 per cent. The seven-month rate in community council contests was 5.38, down 12 per cent, while in sectional contests it was 5.61, up 1 per cent.

Public Deaths

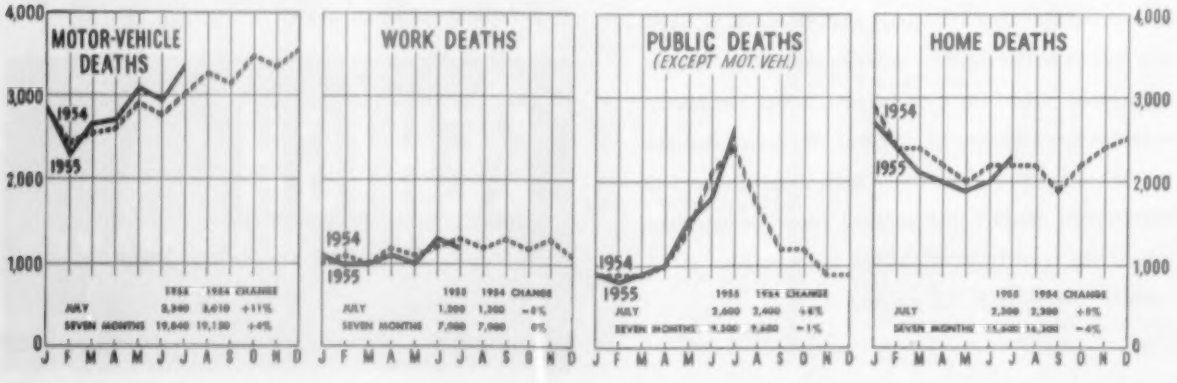
Public non-motor-vehicle accidents in July resulted in approximately 2,600 deaths, or 200 more than last year.

The January-July death total was 9,500, a reduction of 1 per cent from 1954. There were decreases in fatalities from falls, transportation and firearms accidents, an increase in burns and no change in drownings. Deaths of children under 15 years old numbered more than last year. Other age groups showed decreases, with the largest change recorded for persons 15 to 24 years of age.

Home Deaths

The home accident death toll for July was 2,300, an increase of 5 per cent over last year.

The death total for seven months was 15,600, or 4 per cent less than in 1954. Most of the decrease occurred in deaths from poisonings and mechanical suffocation, but fatalities from burns, falls and firearms accidents also were fewer. Aside from a small increase in deaths of persons 45 to 64 years old, all age groups showed some reduction from a year ago.



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**203* *26 April, 1955*
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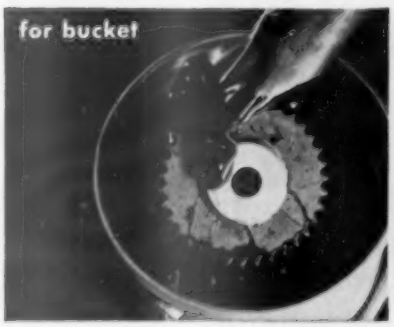

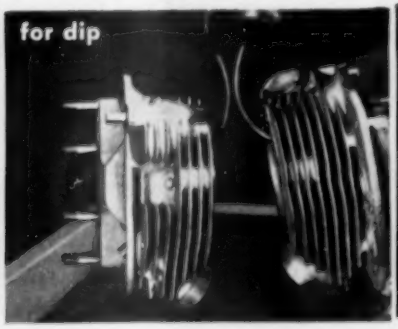

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CASES for COMMENT

Compiled by FRANKLIN G. PATER
Senior Engineer, Industrial Department, NSC

Supplier's Truck Fails, Injures Customer's Employee

An acid truck was making a delivery to the plant. After being hooked up, 26 pounds of air pressure was applied. Normal working pressure for the tank was 30 pounds. After several minutes a weld on the manhole-locking bracket failed, allowing the manhole cover to loosen and spraying 66 per cent sulfuric acid over a considerable area.

One of the customer's employees is assigned to see that valves on the customer's tanks are correctly set and assist the truck driver, if necessary, in making the piping connections. Having completed his work several minutes before, he was walking by the truck and was sprayed with acid. At the time, he was still wearing his face shield and protective clothing but nevertheless suffered burns on the neck and ears, causing him to lose time from his job.

Decision. The injury should be considered as an occupational injury, and included in the injury rates. Some of the committee members commented that this employee was in the area as a requirement of his employment, and they considered that this injury arose out of and in the course of employment, and therefore should be included in the rates.

Comment. To prevent this type of accident it would be safer to pump sulfuric acid out of the tank with a self-priming pump. This would remove the possibility of fittings breaking and spraying acid in the air from the reduction of air pressure in the tank. The use of pumps, rather than air pressure, is standard practice when unloading hazardous liquids.

A discussion of the use of pumps, instead of compressed air, for unloading tanks containing corrosive liquids can be found in Chapter 11 of the *Accident Prevention Manual.*

Out of the Frying Pan Into the Fire

Injured employee was removing frozen cherries from a container in a cafeteria and using his hands to break up the lumps of cherries contrary to his supervisor's orders, which were to use a wooden paddle. Shortly after doing this work he reported to the medical department complaining of shoulder pains which were diagnosed as bursitis. This man had had a previous history of bursitis but it was felt that this constituted an aggravation of the existing condition and ruled as an accident.

While out of employment because of bursitis, the employee returned to the medical department for a routine checkup of his condition and near the department apparently stepped on a banana peel, slipped and fell. He was found unconscious, suffering from bruises and a mild concussion.

There is no doubt that this second occurrence was accidental but just how would this incident be counted on frequency and severity? Should this be counted as simply one injury and the severity determined on the basis of the total time lost, or should the frequency be based on two separate injuries?

Decision. This should be counted as one injury. However, with regard to severity, the total days of disability should be counted even if the second injury causes the employee to be off work beyond the time required for the first injury.

Comment. Housekeeping could have prevented the employee from slipping on the banana peel. Many times people want to dispose of trash but find no trash containers in the immediate area. Rather than going out of their way to find one, they drop trash on the ground, creating a slipping hazard. Trash containers should be placed conveniently throughout work areas.

Fall Cancels Vacation

Employee had just finished installing a screen on the end of the chute of a truck loading hopper. He was standing on a 2 x 12 knot-free scaffold board that was extended across the second level of a patented steel scaffold at a height of approximately 10 feet. The scaffold boards protruded over the edge of the steel scaffold about 2 feet on each end.

Anxious to dismantle the scaffold before quitting time and a week's vacation, the employee began to gather his tools to lower them to his helper who was standing on the ground below. Without thinking, the employee walked out toward the end of the scaffold board to lower the tools to the ground and the scaffold board teetered beneath his 190 pounds, throwing him off the end. The board, however, remained in position on the scaffold.

Righting himself while falling approximately 10 feet, the employee landed on both heels. Most of his weight, however, was on the right heel.

An X-ray of the employee's foot

—To page 130

IS THAT INJURY chargeable to your occupational injury record?

If there is reasonable doubt as to whether an injury arises out of or in the course of employment, consult ASA STANDARD CODE Z16.1-1954. If interpretation of the Code is not clear, the Committee on Interpretations of the American Standard's Association's Sectional Committee will review the facts.

A few cases, with the Committee's decisions, are discussed here. They should be helpful in planning preventive measures as well as in determining the chargeability of accidents.

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THE SAFETY VALVE

Hearts . . . and Flowers

PRESIDENT EISENHOWER'S illness has made the nation heart conscious. It has stimulated contributions for research in controlling a disease that has cut short so many useful lives.

Getting closer to home, within the last few weeks heart ailments have taken a fellow member of the NSC headquarters staff and a close friend and neighbor—both in their prime.

Helping the heart to stand up under the stresses of life is an urgent need but medical science alone can't do the job. Germs and viruses aren't the only destructive agents. The assassin responsible for many a premature departure is the pace of modern living with its physical and emotional tensions. And there are no signs of it slowing down.

Doc's advice to take it easier is often ignored by the cardiac patient. It isn't easy to get out from under responsibilities. Maybe a man isn't as indispensable at the salt mine as he thinks he is but his absence would throw an additional load on his associates. Taking a less exacting job with reduced income would mean a lower standard of living for the family. So he sticks it out until he becomes another statistic for the life insurance actuaries.

Not all the tensions are associated with employment. Conspicuous among off-the-job hazards is the continuous strain of trying to stretch the paycheck to cover all the demands on it—a problem not confined to any particular income group.

A typical candidate for a heart attack has an attractive home with a heavy mortgage on it and a sleek car which he drives through courtesy of the finance company. Maybe Mom has one too. Department store bills raise his blood pressure the first of every month. And periodic checks must be sent to the bursar to keep one or more children in college. With one thing and another he's in hock up to his neck.

Thirty-six holes of golf after a week spent in a swivel chair adds to the wear and tear. And a high-calorie diet is often supplemented by bracing beverages, bicarbonate, and barbiturates. The radio and TV ads for antacids and headache remedies are a commentary on the times.

But when it comes to burning the candle at both ends many a member of the medical profession outdoes his patients. The medico who is chronically late for dinner because of a waiting room full of patients often needs the advice he gives them.

In This Issue . . .

THE SLOGAN, "The Life You Save May Be Your Own," has caught the public fancy. It has been widely quoted and, inevitably, parodied. But it overlooks one of the vitalizing elements of the safety movement—the protection of others. So President Dearborn's Congress address stresses the Scriptural injunction, "Be Your Brother's Keeper—Stop Accidents." (Page 18)

* * *

Because this issue had to go to press in the middle of the week, Congress coverage takes in only the Annual Meeting (Page 22). Elizabeth Evans' essay, "I Speak for Democracy," is a powerful and moving challenge to all men of good will, even in print (Page 23). But if you heard her deliver it, you were almost lifted out of your seat.

* * *

A list of Officers, Directors, and Trustees elected at the Congress will be found on page 30 and excerpts from a few papers available at press time appear on page 50.

* * *

The profession of safety owes much to engineering, yet it goes far beyond the mechanical phases of that many-sided science. What is the future of accident prevention? Is it to be a branch of engineering or will it develop to the point where it can stand on its own feet as a distinct profession? H. W. Heinrich, who has been interpreting safety to a whole generation of accident preventionists, presents a thought-provoking analysis of the problem. (Page 20)

* * *

"Petrochemistry" is a relatively new industry whose ancestry is indicated by its name. It combines many of the hazards of the petroleum and chemical industries but it also benefits from their long experience in preventing accidents and fires. Here's the story of one plant's program. (Page 24)

* * *

There is many a valuable safety idea in the minds of employees but it takes some digging to reach this buried treasure. People are often timid or inarticulate and it takes tactful persuasion to get them to tell what they know. A little recognition—both prestige and cash—works wonders. Here are some ways to develop a suggestion system. (Page 28)

* * *

Many a safety man is making good on the job because of the training he received from his boss when he started on the job. Our fictional safety engineer, back from the Congress, had a chance to look over the two boys he helped to train. His feeling is one of pride tempered with humility. (Page 42)

Carman Fish

Armour's Hexachlorophene Soaps bring

you the easiest, thriftiest way

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from contact dermatitis!

Liquid Dial! Top germicidal soap in factory and office—so effective surgeons use it!

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N-11

ARMOUR *Soap Division*
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Nation Prepares for S-D Day

This year's Safe Driving Day, December 1, aims to surpass 1954's results

BACKED by the support and participation of official and non-official agencies and organizations in every state and publicized by one of the most intensive campaigns in safety history, the nation's second S-D (Safe Driving) Day was well on its way to success long before the December 1 zero hour.

The 1955 program, with the slogan, "Make *Every* Day Safe Driving Day," began last August with a letter from President Eisenhower to Harlow H. Curtice, chairman of the President's Committee on Traffic Safety. This set in action a campaign which includes an intensive 10-day lead-up publicity and educational period prior to December 1 and a 10-day follow-up period.

Last year's S-D Day proved what it set out to show: that an individual can contribute directly to traffic accident prevention by his own observance of the principles of traffic safety. It was effective in reducing traffic fatalities; how effective, however, no one can say, because of the virtual impossibility of collecting accurate statistics for a single day.

This year's three-week campaign will be more effective two ways: it will give S-D Day increased publicity and it will help officials determine more exactly the number of lives saved.

Though it began with a proclamation from the White House, S-D Day is essentially a local venture. The governor of every state has appointed an S-D director and has asked officials of every community to proclaim the Day locally and to appoint local officials.

Activities of the President's Action Committee for Traffic Safety will be concentrated upon coordinating the program nationally and working with state directors and national organizations.

Industry, government, service clubs, fraternal groups, merchants associations, and other organizations everywhere have responded enthusiastically. Through the first week of October the National Safety Council received 6,401 requests for special S-D program suggestion kits and other materials.

The NSC booklet, "What YOU Can Do to Help Make S-D Day a Success," lists promotional materials developed by the Council —everything from bumper strips, armbands, and lapel tabs to book matches, balloons, and "talking tapes" which scratch out "Remember S-D Day" when pulled over a thumbnail.

S-D Day spot announcements, interview scripts, and other materials were sent out to nearly

—To page 97

THE WHITE HOUSE
WASHINGTON

August 5, 1955

Dear Harlow:

It is gratifying to read in the report of the Committee for Traffic Safety that progress has been shown in making streets and highways safer for the American people. I am in accord with the determination of your Committee to broaden its work in stimulating effective community action throughout the country.

The Special Message on Highways, which I sent to Congress on February 22, 1955, was motivated in large part by a recognition of the urgent need we have for improved highways as a factor in saving lives.

In the hope that we shall be able to insure the safety of our families and fellow citizens, I shall be happy to participate in a safety campaign beginning on November 20, 1955, and culminating in S-D Day on December 1.

With warm regard,

Sincerely,

Dwight D. Eisenhower

Mr. Harlow H. Curtice
Chairman
President's Committee on Traffic Safety
GSA Building
Washington, D. C.

CELLULAR NEOPRENE SOLES

add comfort and extra-long wear to smart-looking safety shoes by Thom McAn

Courtesy: Thom McAn Safety Shoe Division, New York, N. Y.

Safety shoes are stepping out these days. The stylish pair of bluchers above keep their sturdy features a secret. Supple glove grain uppers hide the steel box toe, while contrasting composition storm welts and trim soles of cellular neoprene eliminate that "work-shoe" look.

Lightweight and long-wearing cellular neoprene withstands the onslaught of abrasion and scuffing without a chip or a crack . . . refuses to soften on hot flooring. Oil, grease and solvents have little effect on it. And thousands of tiny closed cells throughout cellular neoprene cushion the foot with every step—make standing jobs less tiring.

Small wonder so many shoe designers specify soles of Du Pont neoprene for safety shoes that sell . . . through appearance as well as performance.

Only neoprene offers this balanced combination of properties for work- and safety-shoe soles

- Resistance to flex cracking—even at freezing temperatures
- Resistance to heat
- Resistance to abrasion, chipping
- Resistance to oils, greases
- Resistance to acids, chemicals

SEND FOR FREE BOOKLET

E. I du Pont de Nemours & Co. (Inc).
Elastomers Division NS-11, Wilmington 98, Del.

Please send me your booklet which contains information about neoprene soles . . . descriptions of neoprene's unusual properties and superior qualities.

*Name*_____ *Position*_____

*Firm*_____

*Address*_____

*City*_____ *State*_____

DU PONT NEOPRENE

The rubber made by Du Pont since 1932

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

From Hayburners to Hardtops

For fifty years outdoor advertising has been teaching highway safety

"HORSE AND BUGGY drivers needed safety warnings, too."

So says the Outdoor Advertising Association of America, Inc., which this summer commemorated its golden anniversary of safety activities.

Handpainted 24-sheet posters cautioning horse and buggy drivers appeared in 1900, but the first extensive campaign began in 1905 in cooperation with the Long Island Railroad.

A look at some of the early posters shows that the message hasn't changed much, nor have the drivers — only the wording. Signs which once warned drivers to keep their horses under rigid control at railway grade crossings now urge over-eager motorists to "Slow Down and Live."

That outdoor advertising's safety activities have kept pace with the growth in transportation and the increase in the traffic accident prevention problem was evidenced by the Association's part in this summer's massive "Slow Down and Live" campaign.

Together with the National Safety Council and The Advertising Council, Outdoor Advertising Association members contributed facilities to promote the country-wide program conducted by the National Conference of State Safety Coordinators from Decoration Day to Labor Day.

It's best to be sure! Only

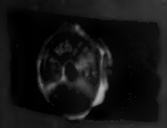
FIBRE-METAL

gives you *maximum* assurance of SAFETY, COMFORT and PROFIT with

Monarch® FACE SHIELDS

With Quick Ratchet Adjustment & Spark Deflector

With Full Spark Deflector & Ratchet Adjustment



Monarch FACE SHIELDS evidence the quality of FIBRE-METAL safety products. For example, this famous Wide Range Quick Ratchet Headsize Adjustment positively adjusts to any head size by simply turning the knob. Its mechanism is completely enclosed and is totally insulated from the head of the wearer.

Many benefits are derived from the avoidance of eye and face injury. Properly equipped for safe operation, a man does his job with assurance and produces better products faster. His comfort reduces fatigue so that he applies himself to his job longer and with less strain. These factors invariably are translated into better profits.

Very important is the quality of the equipment that must protect the eyes and face. FIBRE-METAL *products for protection*, since 1905, have been products of sound experience, strict engineering practice and constant improvement in design. FIBRE-METAL products carry not only our own trade marks but also those of many large producers and distributors of industrial equipment. So, *to be sure*, always ask . . . "Is it a FIBRE-METAL product?"

EXCLUSIVE FIBRE-METAL *Monarch* Face Shield FEATURES

1) Sturdily Constructed for Superior Protection
2) Light in Weight and Comfortable
3) Hinged Offset Headgear for Secure, Comfortable fit with Minimum Pressure
4) Wide Range Ratchet Type Headsize Adjustment
5) Ample Clearance for Prescription Glasses
6) Non-Metallic Window Binding
7) Preformed Windows
8) Replaceable, Padded, Genuine Leather Sweatband

Send for Bulletin No. 41

THE WORLD'S LARGEST MANUFACTURER OF SUPERIOR PROTECTIVE EQUIPMENT

THE FIBRE-METAL PRODUCTS CO.

Now! HY-TEST Safety Shoes

gives you comfort features in

BOOTS

H991

SHOES

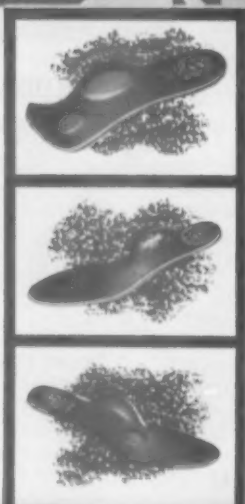
H967

OXFORDS

H209

HY-TEST INTERNATIONAL SHOE COMPANY

- *HY-TEST 3-Way Cushioned Arch Comfort Pad . . . standard in three styles and available in all styles except those with other comfort features.*
- *HY-TEST Cush-Eze Cushioned Insole . . . . . standard in two styles to give built-in comfort all day long.*
- *HY-TEST Cushion Insole with Metatarsal Pad . . . featuring "cookie" cushion for arch comfort and special metatarsal pad for support of bone structure; standard in many styles.*



Tops among HY-TEST's Standards of Quality are its safety features. Next, and equally as important, are those which provide easy-going comfort for your workers. Now, three cushion insole pads are available in boots, shoes and oxfords to insure real comfort. Ask your HY-TEST Representative to give you details or

- *Write for Full Information . . .*

HY-TEST SAFETY SHOES
Division INTERNATIONAL SHOE COMPANY

1509 Washington Ave.
St. Louis 3, Mo.

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Philadelphia 23, Pa.

DON'T SETTLE FOR LESS . . .

Buy HY-TEST and Get the Best!

national
SAFETY NEWS
NOVEMBER 1955

Debits and Credits

WHAT will they be discussing at sessions of the 53rd National Safety Congress in 1965?

There will be some topics not on this year's program, we may be sure. This year a session was devoted to industrial uses of atomic energy. Ten years ago this force burst upon an appalled world with its wartime destructiveness. Today it is a household word, though its workings are still a deep mystery to most people.

Ten years from now people will still be looking for more effective ways of selling safety to management, supervisors, and workers. There will still be problems of machine guarding and personal protection, although automation will undoubtedly bring changes in the picture.

A decade hence, sociologists tell us, we shall be living in

—A very dangerous world.
—A much more crowded country.
—A country with a population more heavily weighted at the extremes of youth and age, though not dangerously.
—A woman's world in terms of numbers.
—A rich country with the wealth widely distributed.
—A fast-moving economy, speeding up industrial and occupational obsolescence.

For the individual, these benefits are foreseen

—Better nutrition.
—Better housing.
—Less heavy manual labor.
—Cures for many diseases.

But offsetting these gains are some very definite losses due to

—Growing stresses and strains due to the rapid pace of living.
—Adjustments that must be made when jobs are eliminated suddenly through technological progress.
—Intensified problems of occupational hygiene and toxicology.

The full impact of these developments on safety programs of the future is hard to visualize but change is inescapable. Living safely and keeping sane in the hazardous and exacting world to come is going to require the services of a lot of technicians and specialists in mental and physical health.

The "Six Be's" of Safety

By NED H. DEARBORN
President, National Safety Council

When presented as a moral and social cause rather than as a matter of expediency, the safety movement may expect the cooperation of many influential forces that have remained apathetic in the past

WOULD that I had the power to arouse 168,000,000 American citizens to the urgent necessities of our present day accident problems! Would that I had the power to arouse you to a crusading frenzy—you who have honored me as your president, and who have given me such courteous attention at these meetings.

You are capable of bringing my dreams to realization. Jules Verne wrote in *20,000 Leagues Under the Sea:* "Whatever one man is capable of conceiving, other men will be able to achieve." I can never claim originality for all my comments because of my delightful association with safety leaders who, here and there, now and then, inspire me and contribute directly to my own thinking.

It has been said over and over that we can be as safe as we want to be. This happens to be true, and so it can be repeated without fear of triteness. In occupational safety we note the greatest gains, but the record could still easily be reduced by 50 per cent if those industries with the poorest records went to work seriously on accident prevention, and if the smaller industries and plants did what we all know can be accomplished.

But, while we can be safe as we want to be, someone must provide the leadership in public education that will be convincing and effective. To me this calls for a new approach to safety education—one that will change the safety appeal from a campaign for safety into a crusade against carelessness.

When presented as a social and moral cause, instead of as a matter of purely individual expediency, the safety movement may reasonably expect to enlist the cooperation of countless forces that have remained apathetic in the past.

The primary function of organized safety work is not to protect an individual against his own acts, but to protect him against the acts of others over whom he would otherwise have no control.

NED H. DEARBORN

The individual must realize:

—That his safety depends only partly on his own behavior and partly on the behavior of others.
—That the safety of others depends partly on their behavior and partly on his.
—That he cannot be careless without endangering others, and they cannot be careless without endangering him.
—That he has a responsibility to others for behaving safely, and that others have the same responsibility to him.
—That his safety and the safety of his family and friends depend upon many factors beyond his or their control, and the safety of other persons and of their families and friends depends upon many factors beyond their control.
—That the main purpose of organized safety work and of safety regulations is to keep him from hurting others, and others from hurting him, rather than to protect each from his own actions.

The individual should be encouraged and helped to behave safely for his own protection. But he also should be compelled by public opinion to behave safely for the protection of others.

The sooner we can induce the average driver, for example, to become his brother's keeper in traffic, the sooner we can swing away from the current tendency to stigmatize safe behavior and will be ready to stigmatize irresponsible, incompetent and indifferent behavior.

How can we help bring about this happy situation? Well, here are my Six Be's:

This article has been condensed slightly from President Dearborn's address at the Annual Meeting, 43rd National Safety Congress, October 17, 1955.

1. *Be socially and morally responsible.* The primary emphasis in accident prevention has been on individual responsibility. I would not detract from the importance—past, present and future—of that emphasis. But it isn't enough.

One of the characteristics of our American liberty has been our social and economic consciousness. It has expressed itself for or against every issue in these two categories. We have learned one incontrovertible lesson from this priceless liberty and that is that organization for or against any major issue is the most effective method of stating our position and of getting a hearing and action on the part of responsible public and private agencies.

You and I and other individuals, as well as corporations, are affiliated with one or more groups in an organized effort to advance what is regarded by each as the most effective means of realizing what we want or what, in a larger and better sense, is best for America.

What about safety organizations? Do you or the organization you represent contribute to your local, regional, or state safety council or committee? Do you contribute adequately? The answer to the latter question, at least, is an emphatic "No." You and your organizations do contribute, and many times adequately, to other worthy causes. Why not to safety?

There are several reasons why safety is not supported by adequate financing and personal participation. One reason is that emphasis on individual responsibility tends to make the individual American citizen feel that he has done his part when he is personally careful to avoid accidents.

That important point, individual responsibility, must of course never be ignored. But the American citizen must also accept social and moral responsibility. He must join and financially support organized groups which can be effective in support—or criticism, when necessary—of our public officials in the discharge of their responsibilities. It is not enough, I repeat, to be concerned about your own welfare and that of your own loved ones. You must, as a moral citizen, be concerned about the welfare of all your fellow men.

THE SIX BE'S OF SAFETY

BE
1. S ocially
2. A ggressively
3. F actually
4. E ducationally
5. T echnically

} Responsible

(and in summary)

6. Y our brother's keeper — stop accidents

2. *Be aggressively responsible.* Merely talking about what ought to be done to prevent accidents is of some value, but not much. Putting the blame on the governor, mayor, chief of police, or any other public official is of no value whatever. The aggressively responsible citizen will take positive action by urging effective safety programs. He will also participate in a state or local safety council or committee and support it financially.

Two illustrations will serve our purpose. The first is in the field of traffic safety, currently our number one safety problem. In 1954 there were 36,000 fatalities, 1,250,000 non-fatal injuries, and an estimated economic loss of $2,800,000,000.

Those who cause traffic accidents are a small minority. The vast majority of street and highway users are careful, law abiding and decent-minded. The minority, the flagrant and willful violators, must be driven off the highways or converted to responsible behavior. This holds for pedestrians as well as drivers of motor vehicles. They are the indifferent, the incompetent, and the irresponsible—the three I's which are the mortal enemies of the three E's—education, enforcement, and engineering. We must all fight the three I's agressively. How? Some of the answers are:

—Higher standards of driver licensing.
—Enforcement of adequate pedestrian controls.
—Higher standards for traffic courts.
—Higher standards of law enforcement.
—More and better public education.
—Driver education for all driver license applicants.
—Adequate highways.

Another field for aggressive action is to put real teeth in the laws regarding penalties for flagrant violations, e. g.:

—Monetary fines that hurt.
—Jail sentences that hurt.
—Revocation of driver licenses for a duration that hurts.
—Impounding of cars or of license plates during the period of license revocation. That, too, will hurt.

The flagrant and willful violator must be made to feel the sharp and painful stigma of social disapproval just as does the murderer, thief, arsonist, the violator of smallpox quarantine, and other criminal law breakers. Simultaneously we must make responsible highway users, again to use one field of safety as an example, proud of their highway performance and their examples of good citizenship.

Home safety is our No. 2 safety problem. In 1954 there were 27,500 fatalities, 4,100,000 non-fatal injuries, and an estimated $750,000,000 loss. This is not an easy problem to solve because of the traditional sanctity of the home, and because public controls are inadequate and difficult to apply. However, there are some controls. They could be made effective. More could be established. Positive action through organized effort would improve

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Can Safety Stand on Its Own Feet?

By H. W. HEINRICH

Accident prevention encompasses knowledge, thought, and action on a broader scale than other professions. Is its future to be tied up wholly with engineering? Or can it become a distinct and recognized profession?

THE phenomenal development, growth, and application of the art and science of accident prevention since the outbreak of World War II has focused attention on the term *engineering*.

A title commonly used for persons engaged in the safety profession is *safety engineer*. Universities offer courses in safety engineering, some leading to degrees. States require registration based on a graduate engineering degree, or its equivalent in knowledge plus experience, before a person is authorized to practice accident prevention as an engineer.

Members of safety organizations wish to have their profession recognized as a branch of engineering *per se*, with special application to the prevention of accidents. They are fully justified in believing that safety has proved its value together with mechanical, chemical, electrical, civil, and other recognized branches of engineering and should be so accepted.

At the same time, however, there is the objective of achieving ultimately for safety a standing equivalent to that of medicine and law. Neither medicine nor law dilutes its professional names by the addition of any other professional term. Each stands on its own feet.

Safety is now in the process of strengthening its qualifications for membership. It can take one of two roads. The one it is presently following features engineering by name and emphasis; the other includes engineering together with other arts and sciences, but by name and activity attempts to win a distinctive place.

Certain facets of this situation suggest taking stock with regard to the outcome of the trend toward emphasis on engineering. That, then, is the purpose of this discussion — not to argue for or against, but rather to describe some implications and clarify objectives.

Definition of Engineering

An accepted definition of engineering is "the art and science whereby the mechanical properties of matter are made useful in structures and machines." The accident preventionist will note in this definition the emphasis placed on mechanics and the exclusion of reference to the human element with which he deals constantly.

Dictionary definitions place no minimum or maximum on the extent of knowledge or ability required by the engineer. A person who designs a machine may be an engineer. He may construct an engine and be an engineer; if he operates it, he is an engineer.

The founder engineering societies, however, apply the definition to include those skilled chiefly in the sciences of mathematics and physics. The National Society of Professional Engineers, The Engineers' Joint Council, and State Boards of Registration for Professional Engineers and Land Surveyors follow a similar course.

Within industry safety is seldom tied in directly with the engineering group. More frequently, it is associated with insurance management, personnel, public relations, or production. The road toward complete recognition for safety as

As author of the well known book, *Industrial Accident Prevention*, H. W. HEINRICH has helped countless safety men to obtain a better understanding of safety principles and applications. For many years he has been Superintendent of the Engineering and Loss Control Division of the Travelers Insurance Company, Hartford, Conn. He is a Registered Professional Engineer, Connecticut, and a member of the American Society of Safety Engineers and the American Society of Mechanical Engineers.

a vital and separate phase of engineering is long and difficult. The alternative — achieving recognition as an independent profession which includes engineering with other required arts and sciences — is equally long and hard.

It is true also in this mechanical age, with its sources of nuclear energy, heavy machinery, advanced industrial chemistry, and automation, that design, construction, and operation all have tremendous impact on the economy and on national as well as personal security. They must not be left in the hands of incompetents.

So the trend quite properly is toward qualification of the engineer by an engineering degree, plus experience, or by examination to show equivalent knowledge and ability. Qualification in safety will of necessity follow a similar course as long as those who practice it remain safety *engineers.*

If engineering in the physical sense is to be the dominating factor in safety, the prime measure of ability and qualification for membership, and if safety is to achieve a high standing in the engineering profession of which it now terms itself a branch, certain changes must take place.

Standards for education, employment, and registration would feature engineering knowledge and experience. The existing character of employed safety personnel would change. Advancement in the profession would be measured largely by specific engineering knowledge and ability. It is possible that the nature and scope of safety work would place more emphasis on physical properties.

Safety societies having membership qualified primarily in pure engineering would be given recognition on a par with the founder engineering societies. They would then have earned recognition as accepted branches of the broad engineering profession.

Is this what the safety profession really wants? Would it be an advantage?

The prevention of accidents, whether caused by unsafe mechanical conditions or by personal action, would still be the objective. Accomplishment of objectives would require a degree of competence in physics and mathematics but would call for much knowledge and ability in addition to engineering. However, recognition for leadership in attaining objectives would be extended largely for engineering abilities. The safety profession might find itself admitted within the engineering group, but on its fringes. Engineering design, construction, research, and teaching would probably stand at the top, with accident prevention on the lower rungs of the ladder.

Hybrid Titles

Under these circumstances, safety would be part of another profession, not competing directly for top honors in teaching, design, or research. At the same time it would retain its well-founded desire to be recognized individually as a profession equivalent in standing to medicine and law.

There may be activities carrying the titles "medical engineer" and "legal engineer." If so, they are recognized as subdivisions either of engineering or of medicine and law. As such they are restrictive titles. An implication of "safety engineer" is that in a sense it is a hyphenated term and that it is also restrictive. The person so titled may be first of all an engineer who specializes in safety, or an accident preventionist who specializes in engineering. Either way, a limitation is inferred.

Could safety stand on its own feet?

Members of the safety profession admire engineering, however defined. They know that the nation's first president and one of the two living ex-presidents were engineers. They know that engineering need not be, and is not, restricted to cold-blooded materialism. They know that the very first requirement in safety is for safe physical environment — safe tools, machines, equipment, structures, light, ventilation, and processes — all of an engineering nature. They appreciate that this is true, regardless of whether human performance is primarily

—To page 90

A Temporary State of Mind

Man, a temporary state of mind can be the undoing of you—so beware!

You don't go implementing all the thoughts you have when you see a luscious bit of femininity going down the street—you know it's just a temporary state of mind.

You don't go tearing into the new car dealer and sign up immediately for the classy model he has in the window—you know it's just a temporary state of mind.

You don't go gobbling up all the goodies you see on the table at the party you're invited to—you know it's just a temporary state of mind.

You don't go buying those sharp looking $200 suits that they have in some stores—you know it's just a temporary state of mind.

You stop and do a bit of reasoning first. You know that eventually you have to come down to earth and justify such actions in the light of other responsibilities.

Well then, Mac, how come you speed up to cross intersections on caution lights—or cheat occasionally and don't wear your goggles—or make up those lame excuses for not wearing safety shoes —or don't take time out to report defective equipment—or rely on the odds to get you out of tight situations—or don't even bother to find out the safe way to do something in the first place?

You know you don't really want to get yourself mangled—or even risk such an occurrence very badly. You don't really want the permanency that sometimes sets in and kills you dead for a long time.

Relax man! It's only a temporary state of mind.

ROBERT D. GIDEL

Open 43rd Congress with Inspiring Meeting

AN appeal to every man to "Be His Brother's Keeper," a graphic report on the Army's campaign for safer transportation, and a stirring interpretation of democracy launched the 43rd National Safety Congress at the Annual Meeting, Monday morning, October 17.

"Be Your Brother's Keeper—Stop Accidents!" the theme of the Congress, was carried on the printed program and on signs throughout the hotels. It was interpreted in some of its current applications in President Dearborn's keynote address, which is printed in this issue.

"While we can be as safe as we want to be, someone must provide the leadership in public education that will be convincing and effective," said Mr. Dearborn. This, he pointed out, calls for a different approach, shifting the emphasis from self-preservation to assuming responsibility for the protection of others.

"Accidents are the 'fifth column in our midst'," said Major General Paul F. Yount, the Army's transportation chief, who gave a grim picture of the accident problems of the armed forces. More than 33,300 service men died in all types of accidents during World War II. It was the first time in U. S. wartime history that accidents killed more than disease.

Transportation is the greatest hazard, he stressed, with privately-owned vehicles causing the most casualties.

In spite of the problems created by a high turnover of personnel and a large percentage of youths, the Army has established a commendable record in controlling accidents while on duty.

For many years, women's part in safety work has been recognized by the appearance of some member of the sex on the program of the Annual Meeting. Custom dictated that the lady speak first, which proved somewhat of a hardship on the male speakers who followed. So this year the distaff part of the program was saved for the last. Miss Elizabeth Evans delivered her stirring message, "I Speak for Democracy," which is printed on the following page. Cold type, unfortunately, cannot convey the full force of the message as it reached the audience which filled the grand ballroom of the Conrad Hilton.

Officers Elected: Clifton W. Phalen, president of the Michigan Bell Telephone Company, Detroit, was elected chairman of the Council's Board of Directors. W. S. S. Rodgers, former chairman of the Board of The Texas Company, was re-elected chairman of the Trustees and Ned H. Dearborn continues as president.

Pre-Congress Activities. The week end before the opening of the Congress was occupied by numerous committee meetings. Friday and Saturday officials of National Safety Council chapters and local safety councils held sessions.

Sunday morning the Industrial Conference met to report on achievements in the field of industrial safety. In the morning the various committees carrying on important projects met to discuss their programs in preparation for the main meeting in the afternoon at which these committees and the Council's Sections presented their annual reports. The committees are: Audio-Visual Aids, Congress Program, Industrial Safety Training, Mechanical Safeguarding, Nuclear Energy, Off-the-Job Safety, Publications, Sectional Activities, Small Business and Associations, Standards, and Research Projects.

ELECTED N S C CHAIRMAN

Clifton W. Phalen, president, Michigan Bell Telephone Company, was elected chairman of the Council's Board of Directors.

OTHER CONGRESS FEATURES

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Additional Coverage of the Congress and Exposition will be carried in the December issue.

NEXT YEAR: The 44th National Safety Congress and Exposition will be held in Chicago, October 22-26, 1956. Headquarters will again be in the Conrad Hilton Hotel, with meetings held also in other downtown hotels.

I Speak for Democracy

By ELIZABETH ELLEN EVANS

Delivered before the Annual Meeting of the 43rd National Safety Congress

Miss Evans' essay won top honors in the 1953-54 Voice of Democracy Contest co-sponsored by the National Association of Radio and Television Broadcasters, the Radio-Electronics Television Manufacturers Association, and the U. S. Junior Chamber of Commerce. Miss Evans, whose home is in Akron, Ohio, is now a student at George Washington University, Washington, D. C.

I am an American.

Listen to my words, Fascist, Communist.

Listen well, for my country is a strong country, and my message is a strong message.

I am an American, and I speak for democracy.

My ancestors have left their blood on the green at Lexington and the snow at Valley Forge
. . . on the walls of Fort Sumter and the fields at Gettysburg
. . . on the waters of the River Marne and in the shadows of the Argonne Forest
. . . on the beachheads of Salerno and Normandy and the sands of Okinawa
. . . on the bare, bleak hills called Pork Chop and Old Baldy and Heartbreak Ridge.

A million and more of my countrymen have died for freedom.

My country is their eternal monument.

They live on in the laughter of a small boy as he watches a circus clown's antics
. . . and in the sweet, delicious coldness of the first bite of peppermint ice cream on the Fourth of July
. . . in the little tenseness of a baseball crowd as the umpire calls "Batter up!"
. . . and in the high school band's rendition of "Stars and Stripes Forever" in the Memorial Day parade
. . . in the clear, sharp ring of a school bell on a fall morning
. . . and in the triumph of a six-year-old as he reads aloud for the first time.

They live on in the eyes of an Ohio farmer surveying his acres of corn and potatoes and pasture
. . . and in the brilliant gold of hundreds of acres of wheat stretching across the flat miles of Kansas
. . . in the milling of cattle in the stockyards of Chicago
. . . the precision of an assembly line in an automobile factory in Detroit
. . . and the perpetual red glow of the nocturnal skylines of Pittsburgh and Birmingham and Gary.

They live on in the voice of a young Jewish boy saying the sacred words from the Torah: *Hear O Israel: the Lord our God, the Lord is One. Thou shalt love the Lord thy God with all thy heart and with all thy soul and with all thy might.*
. . . and in the voice of a Catholic girl praying: *Hail Mary, full of grace, the Lord is with thee . . .*
. . . and in the voice of a Protestant boy singing: *A mighty Fortress is our God, A Bulwark never failing . . .*

An American named Carl Sandburg wrote these words:

> *I know a Jew fishcrier down on Maxwell Street with a voice like a north wind blowing over corn stubble in January. He dangles herring before prospective customers evincing a joy identical with that of Pavlova dancing.*
>
> *His face is that of a man terribly glad to be selling fish, terribly glad that God made fish, and customers to whom he may call his wares from a pushcart.*

There is a voice in the soul of every human being that cries out to be free. America has answered that voice.

America has offered freedom and opportunity such as no land before her has ever known, to a Jew fishcrier down on Maxwell Street with the face of a man terribly glad to be selling fish.

She has given him the right to own his pushcart, to sell his herring on Maxwell Street.

. . . *she has given him an education for his children, and a tremendous faith in the nation that has made these things his.*

Multiply that fishcrier by 160,000,000 — 160,000,000 mechanics and farmers and housewives and coal miners and truck drivers and chemists and lawyers and plumbers and priests—all glad, terribly glad to be what they are, terribly glad to be free to work and eat and sleep and speak and love and pray and live as they desire, as they believe!

And those 160,000,000 Americans — those 160,000,000 free Americans — have more roast beef and mashed potatoes, the yield of American labor and land;
. . . more automobiles and telephones,
. . . more safety razors and bathtubs,
. . . more Orlon sweaters and aureomycin,
the fruits of American initiative and enterprise;
. . . more public schools and life insurance policies, the symbols of American security and faith in the future;
. . . more laughter and song than any other people on earth!

This is my answer, Fascist, Communist!

Show me a country greater than our country, show me a people more energetic, creative, progressive—
bigger-hearted and happier than our people,
not until then will I consider your way of life.

For I am an American, and I speak for democracy.

By HOWARD B. MORRIS

This new industry—petrochemistry—has inherited many fire and accident problems from its parent industries. But it also has the benefit of their long experience in protective measures

Lots of Hazards . . . But Many Safeguards

IN the heart of the Illinois cornfields a great new industry has grown—and with it a dramatic and effective program to protect men and property against the hazards of handling, processing, and storing vast amounts of flammable and toxic chemicals and gases.

The new industrial enterprise is National Petro-Chemicals Corporation, a joint venture of National Distillers Products Corporation and Panhandle Eastern Pipeline Company. The $50 million enterprise is owned 60 per cent by National Distillers and 40 per cent by Panhandle Eastern and operated by USI Division of National Distillers.

On a 442-acre site near Tuscola, 150 miles south of Chicago, the company produces petrochemicals vital to many industrial and defense needs.

The plant's safety and fire protection problems are as numerous and complex as the processes which extract desirable hydrocarbons from 400 million cubic feet of natural gas every 24 hours, seven days a week. This huge volume of gas is piped from Panhandle Eastern's pipe line compressor station near the plant. The pipe line system extends from Texas and Oklahoma to Ohio and Michigan. Most of the gas is sold to 50 distribution companies serving a population of nearly 10 million.

Gas flows into National Petro's plant through a 34-inch line. After some 25 million cubic feet of hydrocarbons are extracted daily, the gas is returned to Panhandle Eastern's line to resume its journey to consumers.

Hydrocarbons are liquified and then separated and purified in a fractionation unit. Each day's production is about 10 million cubic feet of ethane, 400,000 gallons of propane, 80,000 gallons of butane, and 19,000 gallons of gasoline. Ethane is converted into ethylene in the largest unit ever built for the purpose. In the "cracking" process, approximately 600,000 pounds of ethylene and 8 million cubic feet of hydrogen are produced daily.

Hydrogen and ethylene are used in other processes. Ethylene, for example, is reacted with sulfuric acid and water to turn out 125,000 gallons of 192-proof synthetic alcohol a day. Ethyl ether is a by-product of this process. Ethylene is also reacted with hydrogen chloride to produce ethyl chloride, an intermediate used in the manufacture of tetraethyl lead. Recently, the plant added production of polyethylene, the miracle plastic.

Despite the fire and accident hazards that exist in the presence of these gases and chemicals, management's recognition and full cooperation, along with an intensive program of inspection and train-

HOWARD B. MORRIS is Supervisor, Plant Protection and Training, National Petro-Chemicals Corporation, Tuscola, Ill.

Firemen (left) wear Chemox breathing apparatus with speaking diaphragms which permit conversation while battling test fire. Above, a Demand Pneophore is kept in main dispensary and in chlorine unloading area because of constant hazard of inhaling toxic or irritant gases.

ing, have achieved results. In 1953, when considerable construction work still was in progress, the plant's accident frequency rate was 5.3 disabling injuries per million man-hours. By the close of 1954, the rate had been lowered to 3.7.

At the end of the first seven months of 1955, not a single disabling injury had been recorded among the plant's 640 employees.

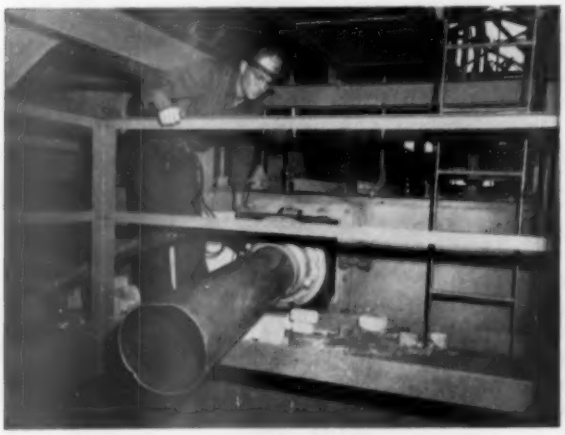
Fire prevention and safety are the direct responsibilities of the plant protection and training department. There are two full-time fire and safety inspectors, one full-time fire marshal, and a chief of guards. In addition, a regular fire patrol is maintained throughout the plant. A central safety committee, which meets monthly, is empowered by management to establish safety policies and the plant safety inspection committee makes weekly inspections of the entire plant.

The real secret of the fire protection setup, however, lies in the fact that all new employees are given at least eight hours of basic training in fire prevention and fire fighting. Most of the plant's 112-page booklet of rules and regulations is devoted to safety.

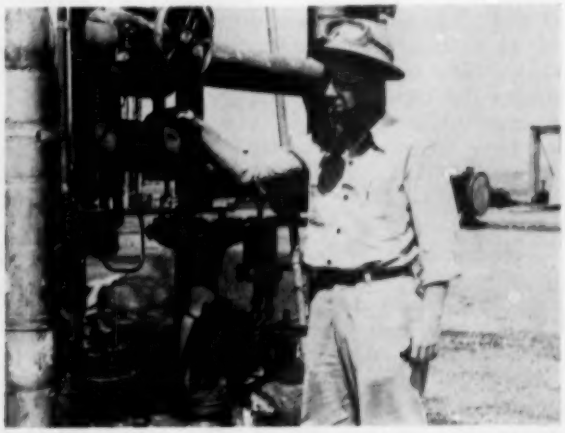
Employees assigned to respond to fire alarms as part of their regular duties receive more intensive and advanced training. Each man on the fire crew is scheduled to receive not less than 60 hours training each year in line with National Fire Protection Association standards. Detailed records of the training are maintained for each man.

Because safety and fire protection are closely related, the training every employee receives does much to stimulate his awareness of personal safety habits.

In addition to classroom and film sessions, fire training is carried on weekly at a demonstration grounds set up in an area of the plant safely distant from processing equipment. The limestone-



Safety inspections are made before any maintenance work is permitted on process equipment. Inspector Lloyd D. Strohl here has used an Explosimeter to determine whether the ethane cracking furnace was gas-freed.



Employees in areas where chlorine is used are equipped with compact, pocket-type respirators for quick use in case of leaks in tanks, pipes, or valves. Respirator protects against light concentrations of acid gases and vapor.

Frequent tests for combustible gases are made throughout the plant with MSA Explosimeters. Some hazardous areas are checked for gas leaks before any motor vehicle is admitted. Inspector (left) uses a probe tube with the instrument. Above, a technician checking the valves of a chlorine tank car wears gas mask with special chlorine canister. A built-in air line also is provided at the chlorine unloading spur for use when breaking connections on tank cars.

covered area is approximately 90 by 100 feet, with a centrally-located, 400-square foot concrete pad. There is a steel tank 15 feet in diameter and 4½ feet high in which various types of oil fires are ignited. Other practice provisions include a "gasket failure" manifold pipe 10 feet high; a jet burn-off piping set-up 3 feet above grade, and arrangements for simulating trench fires.

During his basic training, every plant employee is given the opportunity to extinguish various types of test fires using different methods of extinguishment. Gasoline, ether, waste oil, and propane are among the combustibles used in practice. Every type of extinguishing technique available at the plant is demonstrated, including dry chemical, foam, and water fog.

An important element of the training is in the use of the two principal types of respiratory protective equipment provided by National Petro-Chemicals. These are MSA Chemox self-generating oxygen breathing apparatus and gas masks with canisters for protection against specific classes of gases and vapors.

The many thousands of dollars invested by management in safety appliances, fire prevention equipment, and fire-fighting apparatus have returned dividends that are difficult to measure but which are very real. With a large force of highly trained technical personnel, chemical engineers, and other skilled employees, the plant cannot risk losing the services of these specialists through injury. Moreover, much of the process and production equipment could not be replaced quickly.

To facilitate the fire-fighting plan, the entire plant area is divided into eight zones, identified numerically. Alarms are transmitted by dial telephone to guard headquarters over an extension reserved exclusively for reporting fires. On receipt of an alarm, the guard immediately actuates five large sirens. Then, through an automatic instrument panel, the number of the zone in which the fire is located is blasted out on the generating station's steam whistle. The number of blasts in succession indicates the zone in question. The number of zones will soon be increased to 12.

When the alarm sounds, designated personnel from each operating zone immediately respond. Two men from the research laboratory, adjoining the plant fire station, are assigned to drive the multi-purpose fire truck. A smaller three-quarter ton truck, used for fire patrol service by one of the inspectors, also goes to the scene. Normally, 10 to 12 men, trained in fire fighting, answer every alarm. In the event of a major disaster, a master emergency plan including rescue and overhaul work would go into operation. Any man in the plant may be called upon to assist in fighting fires.

National Petro's fire station is as modern as one would find in any well-equipped community. Included in the brick structure are a hose-drying tower, storerooms for supplies, extra ladders, training facilities and other essentials.

The multi-purpose fire truck was specially designed for the company. It is built around a two-stage centrifugal pump. Pump specifications are 500-GPM at 120 pounds net pressure, 250-GPM at 200 pounds net pressure and 167-GPM at 250 pounds pressure. The engine carries 500 gallons of water in its booster tank and a normal load of 2½ inch and 1½ inch hose,

the latter being "pre-connected" to discharge outlets for rapid use. A turret nozzle with 360° horizontal travel, is mounted behind the cab and three tip sizes are available. A 50-gallon tank of foam liquid is carried and the foam proportioner is built directly into the piping system. A four-wheel trailer with additional drums of foam solution is kept in the fire station.

An important feature of the fire apparatus is its provision for quickly applying dry chemical on a fire. A ton of dry chemical — carried on the truck — can be expelled on a fire in two minutes and nine seconds, using nitrogen as the expellent. One 150-foot length of chemical hose with shut-off nozzles is carried on each side of the vehicle. A full complement of other equipment, including four 30-pound dry chemical extinguishers, is included on the truck.

The fire patrol truck carries small extinguishers for different classes of fires, and an assortment of emergency rescue equipment. A 500-pound dry chemical unit mounted on a trailer will be delivered shortly.

As a part of community relations, the company's fire equipment and personnel assist neighboring volunteer fire departments in fighting fires at farms and in towns within a five-mile radius. In the past two years, National Petro-Chemical's fire brigade has responded to 11 outside alarms.

Every employee in the plant operating area is required to wear a protective hat and safety goggles or glasses. Visitors and outside contractors likewise must wear this equipment.

Fire hydrants are located throughout the entire plant area. The fire water main system is supplied from a nearby 25-acre artificial lake with a storage capacity of 100 million gallons. Although the fire service lines, mostly 10-inch mains, are independent of domestic and process lines, they are cross-connected with the process water system so cooling water can reinforce the fire supply. The main fire pump is a 1500-GPM (276-foot head) gasoline-driven, multi-stage unit taking suction at the lake. Three of the cooling towers have electrically-driven 500-GPM pumps which help supply the fire system.

In the process areas — such as the extraction unit, alcohol plant, fractionating unit, etc. — there are 14 quick-acting hose reel stations. Each station contains 250 feet of 2½ inch hose. Also, there are 10 turret nozzle stations, any one of which can be directed to discharge a steady stream of water on vital equipment.

Also in the process areas are cabinets containing Chemox oxygen-generating breathing apparatus. Sixteen of these masks, which protect the wearers in any toxic gas or oxygen-deficient atmosphere, are used at the plant. In most areas, asbestos suits and gloves also are stored in the cabinets. Steel cases, fixed in an upright position to structural columns in strategic locations, contain fire blankets that can be pulled out quickly to envelop a fire victim and extinguish the flames.

Because of the wide and varied nature of gases and chemicals used and produced at the plant, the fire-fighting crews are trained to identify the gas involved. Each process produces certain known gases and appropriate breathing

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Portable Pneolators with auxiliary attachments for administering artificial respiration automatically to more than one patient simultaneously are available. Safety Inspector N. Wayne Walkup demonstrates one of the units in the plant fire station during a training session.

Principal fire-fighting apparatus is this multi-purpose truck. In addition to water and foam, the truck can discharge a ton of dry chemical in two minutes, nine seconds. At left is a trailer containing extra drums of foam solution. Truck carries a 50-gallon tank of foam.

Gold Mine of Ideas

By JOHN C. KATO

Some of the ideas may be buried deep in the minds of employees but a well-managed suggestion system brings them to the surface

WHEREVER PEOPLE work, some of them are sure to have usable ideas for improving the job. Unfortunately, many a thought remains buried in the mind of its author. He may be too diffident or perhaps he may not have all the details worked out.

In the past suggestions were often merely given verbally to the worker's foreman who passed them on or brushed them off, depending on his opinion of their merit or how he happened to be feeling that morning.

In many companies a special organization has been set up for handling suggestions. The ideas are reviewed carefully by those in a position to appraise their value. The author of the suggestion is made to feel that the company appreciates his interest, whether or not the idea is practicable. For accepted ideas there is a scale of awards.

The number of safety items submitted will be influenced to a large extent by the company's attitude toward suggestions for safer methods and conditions. In the systems I have studied interest in safety is maintained by one or more of the following methods:

1. Incorporating safety in the Employee Suggestion booklet as a definite subject eligible for a cash award.

2. Promoting safety suggestions through stories of awards in the employee publication.

3. Including suggestion posters which concentrate on safety in the poster schedule.

4. Bringing attention to safety in the types of suggestions listed.

5. Routing safety suggestions to the safety department for consideration.

JOHN C. KATO is Senior Engineer, Industrial Department, National Safety Council.

All Promote Safety

As a promotion method, the Suggestion booklet is valuable. The booklet states the policies and procedures the company has agreed to follow in considering suggestions from employees. It further lists the types of suggestions desired. They all list safety among the eligible subjects. Various terms may be used:

- Reduce accident costs.
- Reduce accident hazards.
- Eliminate unsafe conditions.
- Improve working conditions.

Regardless of the wording, all the suggestion plans promote safety. Such a listing in the booklet is but a starter for maintaining interest.

House organ articles or pictures are the most common form of publicity given suggestion award winners. Even if the award-winning idea is not given in detail, such stories almost always refer to the type of suggestion.

METHOD NO. 1

Evaluation of Safety Suggestions

In reality, awards are based on a point system and the points have value in the award range

25 to 30 points	Minimum Award
40 to 50 points	$10.00
55 to 60 points	$15.00

(graduated up in similar proportion)

This chart includes five considerations.

	Points
1. Likelihood of Accident	
Some	5 to 10
Appreciable	15 to 25
Considerable	30 to 50
2. Exposure Frequency	
Little	5 to 10
Appreciable	15 to 25
Considerable	30 to 50 plus
3. Possible Extent of Loss Due to Accident—Personal Injury and/or Property	
Slight	5
Moderate	10 to 15
Appreciable	20 to 30
Considerable	35 to 50 plus
4. Extent of Application	
Local—one or two places	5 to 10
Several locations	15 to 25
General application—Many locations throughout plant or Company	30 to 50 plus
5. Effectiveness of Suggestion	
Minimize hazard	5 to 10
Limits hazard	15 to 25
Eliminates hazard	30 to 50

Special safety posters are available and should be used. Some companies encourage safety suggestions by creating their own posters.

Payroll inserts or letters mailed to employees' homes outlining the types of suggestions desired that particular month are also used by some firms. Safety suggestions are always mentioned.

The safety engineer or safety department usually receives all suggestions concerning accident prevention. The safety engineer investigates and decides whether the suggestion is practical. Regardless how silly a suggestion may appear it should be investigated fully. To dismiss a safety hint lightly can cause apathy toward accident prevention; the employee whose idea is so rejected soon passes the word around.

It's a good idea to recommend an award for every safety suggestion which has any merit whatsoever.

Evaluating Ideas

Because safety suggestions are intangibles this is a problem when suggestion plans are formulated. A wide range of methods are in use today, but the important thing to remember is that there be uniformity in consideration and uniformity in awards.

One method that can be used as a guide considers the cost of installing the safety measure suggested. If the cost of installation of a guard, for example, is $25, then that sum would be used as a minimum amount of benefits and the award would be calculated from this base. This method is based on the theory that if the company is willing to spend $25 to make the installation, the idea is worth at least that much.

Handling Rejections

It is easy to write a letter of congratulations, but a rejection requires more careful wording. It is natural for an employee to resent unfavorable decisions, because he believes his idea to be a good one or he wouldn't have submitted it. Consequently, a great deal of care and tact must be used in explaining the reasons for rejection.

METHOD NO. 2

Standard for Computing Awards on Adopted Suggestions of Intangible Value

Safety and other suggestions in which a cash value cannot be readily calculated will be graded by the Award Committee into five groups . . . indicated in the table below, with the specific awards given.

Grade of Suggestion	Criteria (amplified below..table)	Award
E.	Limited scope of applicability	$ 7.50
D.	Broader applicability or greater value	Up to $ 25.00
C.	Application to major organization element	Up to $ 150.00
B.	1. Affecting large numbers of persons 2. Originality and ingenuity in preparation	Up to $ 500.00
A.	1. High potential value and coverage 2. Considerable creative ability evidenced by suggester	Up to $2500.00

E. The suggestion has merit and should be adopted but is extremely limited in the scope of its applicability and potential value to the company. Suggestions calculated to make minor improvements . . . safety and welfare of those immediately associated with employee but have little or no usefulness elsewhere fall into this category. The suggestion need not exhibit any particular originality as long as the application of the idea in this instance is that of the suggester.

D. The suggestion, while limited in the scope of its applicability, proposes to affect the safety and welfare of larger groups of employees than just the immediate associates of the suggester, or if affecting only the smaller groups, it has, in the Committee's judgment, a greater potential value or exhibits a higher degree of originality than those of the E category.

C. Suggestion applicable throughout the plant or office or throughout the company . . . safety and welfare of substantial numbers (employees) affected. Suggestions which exhibit considerable originality may be considered under C. (In addition, suggestions which have proved to have a D value at the plant where the employee works may prove to have applicability to similar groups at other plants and be raised to the C value.)

B. Suggestions having potential value . . . applicable to many groups of persons throughout the entire company. In addition, suggestions which have a more limited scope of applicability may be considered if the suggester has exhibited both originality as to the concept and more than average resourcefulness in the preparation of his suggestion.

A. Suggestion with a high potential value . . . applicable to a large number of persons. The suggester must have exhibited exceptional creative ability in the conception and preparation of the suggestion to merit consideration under this category.

The fact that the suggestion was offered indicates interest in accident prevention; because of this, the rejection must be accomplished by a thorough explanation in a letter to the suggester. The letter should explain why the idea could not be adopted and, at the same time, stimulate further thinking about accident prevention. Each idea is someone's personal brain child — a human factor which demands individual handling. Carefully prepared, written with patience and diplomacy, a turndown can become an important factor in encouraging further safety suggestions.

Following are a few examples of rejection letters that incorporate the above principles:

Example 1. Here is one that is concise, convincing and definite:

DEAR JIM:

The Suggestion Award Committee realizes that you have spent a great deal of time and effort in considering and submitting this idea for which we sincerely thank you.

After careful investigation of your idea . . . it was found that such a guard would present a problem, that is, it would interfere with the feeding of the machine.

This idea will be placed in the follow-up file for future consideration since I

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Richard R. Deupree, chairman, Board of Directors, Procter and Gamble Co., Cincinnati.

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Gustav Metzman, former chairman, American Railway Car Institute, New York.

Thomas I. Parkinson, former chairman, Equitable Life Assurance Society of the United States, New York.

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Arthur E. Stoddard, president, Union Pacific Railroad Co., Omaha, Nebr.

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Juan T. Trippe, president, Pan-American World Airways System, New York.

Thomas J. Watson, chairman, Board of Directors, International Business Machines Corp., New York.

C. E. Wilson, The Secretary of Defense, Washington, D. C.

Robert W. Woodruff, chairman, Finance Committee, The Coca-Cola Co., Atlanta.

One of the more exacting jobs for wire-rope slings—lifting a locomotive aboard ship.

Lifting Safely With Wire Rope

By T. O. AHO

NO ONE knows better than the rigger or crane operator what it means to lift safely. Consideration must be given by the design engineer to the parts of the hoisting tackle on a derrick or crane, including the hoisting wire ropes, sheaves, pins, hooks, as well as the slings or fittings.

Wire rope has made it possible to lift much heavier loads, with a resultant increase in safety. It has therefore been adopted for hoisting operations under exacting conditions.

There are literally hundreds of types of wire rope. This discussion will be limited to two basic constructions or classes — 6 x 19 and 6 x 37.

Wire rope is composed of a number of cold-drawn steel wires laid helically into strands which in turn are closed helically around a core. This core may be fiber or independent wire rope core (IWRC). To give you a picture of the two ropes note:

6 x 19 Class or (Figure 1)
6 x 25 Filler Wire (Figure 2)

Each strand consists of a layer of 12 outer wires, 6 inners, 6 small filler wires and 1 core wire, or 25 wires total in one strand. There are 6 strands around a fiber core.

The 6 x 25 filler wire type has wires of a size and number to give optimum resistance to abrasion and to bending fatigue. The filler wires occupy certain spaces in the strand, giving support to other wires.

The 6 x 25 filler wire type is widely used. It can be termed a happy medium between ropes designed to resist abrasion and ropes designed to resist bending fatigue. Where greater flexibility is desired, at the sacrifice of abrasion resistance, one may use 6 x 37 class ropes.

6 x 37 Class (Figure 3)
6 x 41 Class (Figure 4)

Each strand consists of a layer of 16 outer wires, 8 small inners, 8 large inners, 8 inner wires, and 1 core wire—total 41 wires per strand.

The 6 x 37 class ropes have a greater number of wires of smaller diameter, resulting in a more flexible rope. This class is readily adapted to small sheaves and drums. They are, for example, also used in larger diameter ropes on traveling cranes, dredges, shovels, and towing hawsers.

There are many other special purpose ropes within the group of zinc-coated marine cables, such as 6 x 12 running ropes, 6 x 24 mooring lines. Many of the cargo hoisting and running lines are of 6 x 19 class rope, generally in sizes from 3/8" to 1" in diameter.

Both 6 x 19 and 6 x 37 class ropes are used for wire rope slings.

Wire Rope Slings

In many instances one cannot connect a load directly to the hoist line. Thus, slings are commonly used between the hoist hook and the load. Wire rope slings have the same advantages as do wire ropes for hoisting:

1. High flexibility.
2. High strength per unit of weight.
3. Good resistance to shock loads.
4. They can be readily inspected.
5. From a safety standpoint, the failure of one wire or even a strand will not drop a load. If an overload condition exists, failure of individual wires or strands will take place, giving enough warning for a rigger to get out of the way.

Naturally, the best grade of wire rope — improved plow — is recommended for slings. The

T. O. AHO is Assistant to Chief Engineer, Bethlehem Steel Company, Williamsport, Pa. This article has been condensed from a paper presented at the 25th Annual Convention, Greater New York Safety Council, April, 1955.

combination of high strength and abrasive resistance results in higher rated capacities.

Sling Types: The simplest type consists of one length of wire rope with a spliced loop or eye at each end. These slings are most widely used for general lifting purposes in shipyards or industrial plants.

The two wire rope constructions most commonly used for slings are the 6x19 class (6x25 filler wire) and the 6x37 class or (6x41). The 6x19 is recommended from ¼" through 1⅛" dia. and the 6x37 for 1¼" dia. and larger. Of course, 6x37 can be used where added flexibility is desirable.

The erector or **choker type** sling is familiar to riggers. Loop splicing has for many years been considered the job for an experienced splicer. He not only would make his own slings but would know how to use them. For all practical purposes, as well as in the interests of safety, spliced slings should be made by experienced splicers.

It is important to know that the efficiency of the hand-tucked loop splice varies according to the wire rope diameter; for instance, for ½" rope it would be approximately 90 per cent, for 2" diameter, 75 per cent. A sufficient number of tucks must be made to assure safe conditions.

In this type of sling we have the problem of protruding wire ends of a completed splice which are objectionable because they may result in puncture wounds to the rigger's hands. Servings may be used but they do not last very long.

This problem of protruding wire ends has been overcome by the use of mechanically spliced slings (Fig. 5). There is a definite industry trend in this direction. In the Bethlehem "Torpedo" sling the strand ends are tightly locked in a steel sleeve. This eliminates the protruding wire ends. The combination of a rolled eye splice and the steel sleeve will develop higher strength than the conventional spliced type and is rated as 100 per cent efficient.

An independent wire rope core and preformed wire rope is standard for this make of wire rope sling.

Grommet Slings. Another type of wire rope sling commonly used is the grommet. This is usually made from one continuous length of strand which is laid up to form an endless rope. If more flexibility is desired it is made from one length of wire rope. Figure 7 represents a strain-laid grommet. From a safety viewpoint this type of sling can be used for a double-body choker hitch to give more grip with less tendency to slip than a single rope. It is good for short hook-ups for small objects as well as for the large diameter pieces, such as pressure vessels. End fitting attachments are also used with grommets, such as the equalizing thimbles.

Braided Slings. Another type

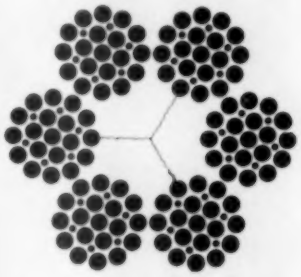

Fig. 1. 6 x 19 Class (6 x 25 Wire Type W) hoisting rope, fiber core.

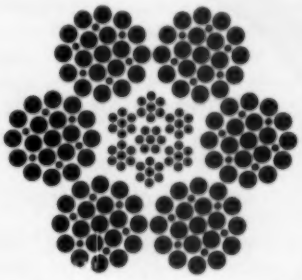

Fig. 2. 6 x 19 Class (6 x 25 Filler Type W) with 7 x 7 IWRC.

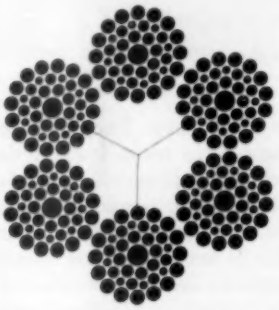

Fig. 3. 6 x 37 Class (6 x 41 Warrington Scale) rope, fiber core.

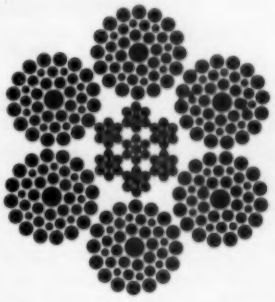

Fig. 4. 6 x 37 Class (6 x 41 Warrington Scale) with 7 x 7 IWRC.

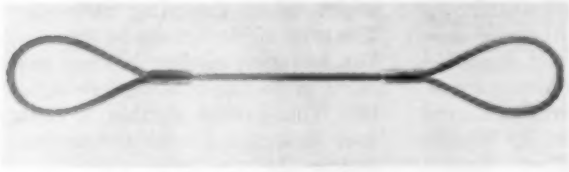

Fig. 5. Mechanically spliced sling.

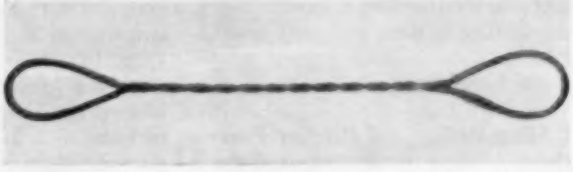

Fig. 6. Eight part ⅛-in. braided sling.

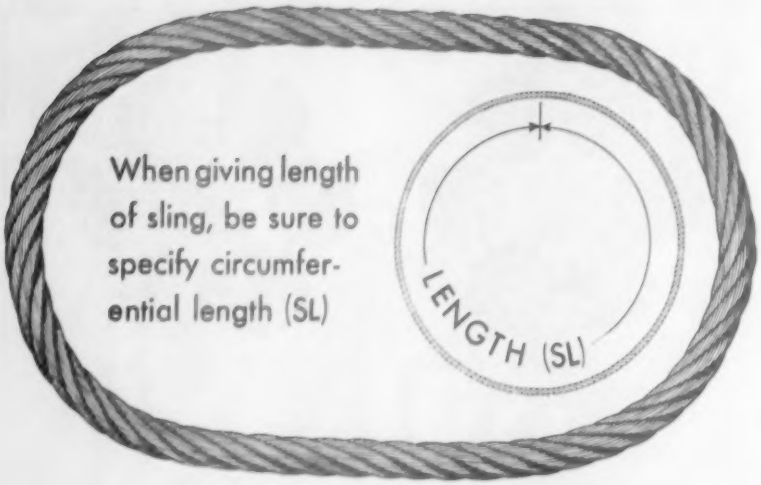

Fig. 7. Grommet sling.

of sling which has become increasingly popular for handling heavy machinery, or cylindrical objects, such as tanks, rudder stock, or ship shafting, is the braided sling, sometimes known as multiple-part wire rope sling (Fig. 6). These may consist of 4, 6 or 8 or more of individual ropes within the body of the sling. For instance, a braided sling of 8 parts of ¼" rope means eight individual ¼" diameter ropes. It is normally made approximately round in the body but can be made in flat weave.

By nature of their construction braided slings are more flexible than the single-part slings. This makes them easier to handle in the larger sizes. Take for instance braided slings used for handling propellers, normally called "wheel jobs" in shipyards. Two 8-part braided slings are generally used in a choker hitch to handle wheels weighing up to 25 tons.

This used to be a laborious operation. Now two men can install braided slings on the job without the help of lifting gear.

From a standpoint of safety, the braided sling can be visually inspected before use. It will hug the load better, it resists any untwisting action, and will resist kinking to a greater degree than a single-part rope.

Sling Design and Rigging Practices. A sling must safeguard the "load" to protect life, property, or machinery. The sling designer must have some idea of the load or weight. It is difficult for a manufacturer to recommend a type of sling or type of hitch unless full details are known, such as weight, material handled, center of gravity, lifting lugs if any, head room, etc.

How should a sling be used? Or how should the hook-up or hitch be made? There are three basic hitches to be considered: (1) Choker, (2) Basket, (3) Bridle. A sling may be used in a straight pull to lift an object to move it to another spot (Fig. 8). It isn't considered good practice to carry a load in single-point suspension through the length of a shop. You may spin the load.

The choker or anchor hitch is the surest type. One eye of the erector sling is passed through the other and the object being lifted is held securely by a choking action. Two such slings can be used as a bridle to lift a long bar, for example, to prevent slippage. Choker hitches are commonly used to turn objects.

The basket hitch is used to lift large cylindrical objects or where material is to be lifted straight up and moved a short distance only (Fig. 10). You are not supposed to turn a job with a basket hitch. Where spreader beams are used to balance a load, basket hitches are satisfactory. Where basket bridle slings are used, it is good practice to double-wrap to prevent slippage of a load, such as a bundle of pipe.

Bridle hitches. The two-leg bridle sling is used where there are two connecting points on the load, such as lifting lugs. Three and four-leg sling bridles are also commonly used. Sometimes turnbuckles are necessary to balance the load.

Bridle slings bring up an interesting and often overlooked factor—that of sling angles. This can be made clearer by a simple demonstration. If you take a 10 lb. bar, for instance, and hang it from a scale, a single-rope leg will register a 10 lb. pull or stress (Fig. 11).

Now, if we hook up two legs to make an angle of 30° with the vertical, the load is still 10 lbs., as registered on the top scale but the "pull" in each leg is approx. 5¾ lbs. At 45° this will be slightly over 7 lbs. in each leg, and at 60° with the vertical the stress in each leg is 10 lbs. or same as the load being lifted. This means that each sling leg must have a rated capacity of 10 lbs. being lifted.

A simple demonstration as this shows that, as the angle with the vertical increases, the stress in the sling legs increases. In other words, for a given load a larger sling with a higher rated capacity is needed as the vertical sling angle increases.

One other thing might be mentioned: a balanced lift is essential to safe handling or lifting. You must know your center of gravity.

Safety Factor

In speaking of rated capacities for wire rope slings it is generally accepted by sling manufacturers that a minimum safety factor of 5 be used. This, of course, is based on new or unused wire rope, with allowance made for all applicable factors that might affect the sling strength. The type of hitch must be known. For instance, choker hitches are rated as 75 per cent of a straight lift. You cannot double a rope over its own diameter and expect double the strength.

To hold to a safety factor of 5

you must consider the splicing or end attachment efficiencies. Table II shows efficiencies of splices and some of the common end attachments.

Inspection

When should you take wire rope or slings out of service? This is a difficult question; there is no specific way to get a reliable answer. Periodic wire rope and sling inspection is a must for safety. Common sense and experience are the best tools of inspection. The sling user himself may be the best person to decide when slings are to be taken out of service.

Inspection of operating ropes should be considered separately from inspection of wire rope slings.

Thus, to condemn a rope, a careful check or inspection must be made, not only of the rope itself but of other parts affecting its service life. There are many factors to consider, some of which are:

1. **Construction of rope.**

2. **Broken wires.** The seriousness of this item depends upon the number of broken wires in all the strands within a rope lay (distance along the rope required for one strand to encircle the rope).

Are the wire breaks equally distributed? What is the nature of wire breaks? Are they all in one strand? Location is important.

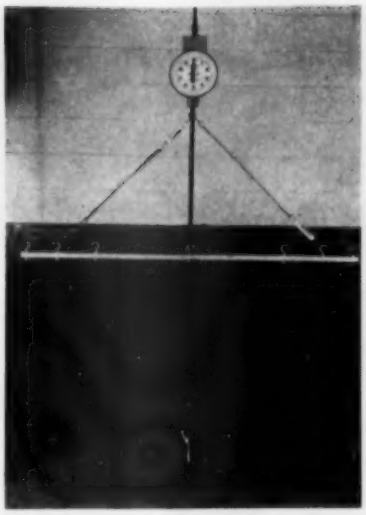

Fig. 11. Scale for registering pull on legs of sling.

Take for instance, the 6x41 crane rope having 16 outer wires. It is known by calculation that approximately 45 per cent of the wire rope strength is in the outer wires. If all the outer wires were removed, then 55 per cent would remain in the inner wires. This is called the reserve strength of wire rope. Should one wire break in outer layer of 16 wires in one strand, it is but one wire out of 96. This can be taken as 1/96 of 45 per cent or .47 per cent loss in strength.

Where the accident hazard is great, strict rules exist and must be followed for condemning ropes. For example, the U. S. Bureau of Mines has rules on allowable wire breaks and wear on mine hoist ropes. Three broken wires in one rope lay or 30 per cent wear on outside wires will condemn the hoisting rope. More liberal rules apply where hazards are not considered as great.

3. **Preformed rope.** Inspection is slightly more difficult since wires may lay in place rather than "wicker."

4. **Wear on outside ropes.** By careful measurements, the amount of wear can be determined. This is used as a criterion for rope removal.

5. **Corrosion.** Rust or corrosion can seriously short rope life. The safety inspector should look for pitting caused by rusting, as this can prove detrimental to rope life or cause early failure.

As far as sling inspection is concerned, the safety rules tend to follow the pattern of operating ropes. Slings do not necessarily wear out by abrasion, but as they get kinked or snarled they are thrown out.

Slings should be examined for broken wires or strands. A broken strand makes a sling unsafe. Sometimes splices get unlayed or wear out before the rope body. Fittings and attachments should be examined carefully.

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Fig. 8. Sling used in straight pull.

Fig. 9. Choker hitch.

Fig. 10. Basket hitch.

Supervisors' training session on principles of fire extinguishment conducted by James H. Snyder, Plant Protection and Safety Department manager.

The Safety Habit Can Be Sold

Persuasion, psychology, and salesmanship form the keystone of this supervisors' program

THERE was a time, not so long ago, when the supervisor's job was limited to getting out the work. Today, he is expected to get it out economically and at the same time maintain harmonious relations with employees.

Economically means at the lowest possible accident frequency rate. To do this effectively, and simultaneously keep employees in a friendly and cooperative mood, is more of a feat than appears on the surface. It doesn't mean merely ordering a group of people to perform a task in a certain safe manner; it takes some understanding of human nature and salesmanship.

At the Hiram Walker & Sons, Inc., plant at Peoria, Ill., site of the world's largest distillery, a supervision training program on accident and fire prevention has achieved outstanding results because of its emphasis on this bilateral approach.

The program's first objective is to impress supervisors with the fact that accidents are an interruption of production for which they must assume responsibility to management. Since the goal of all supervisors is to keep output at its efficient maximum, they can be convinced that safety training is a tool to attain this end.

Because supervisors naturally are more interested in production than in accidents, the program tries to appeal to them in such a way that they are made to realize that they will have fewer headaches if production flows to the shipping room with a minimum of interruptions, including accidents.

You can't make safety engineers out of supervisors. Trying to do so encounters considerable resistance from the supervisors themselves. Safety training should not be made to appear as an additional chore which might prompt the response, "I've got my hands full as it is; now they want me to do something else."

Once supervisors are convinced that constant awareness of safety precautions by employees is a great stride toward economical output, they will cooperate wholeheartedly.

If the first objective of the program can be said to be a function primarily of the safety manager and his staff, then successful attainment of the second goal rests heavily on the supervisors. Once supervisors understand what causes accidents and how they can be prevented, they must transmit this knowledge smoothly and painlessly. To accomplish this they need more than a passing acquaintance with the art of human approach. They must learn how best to appeal to employees through persuasion, practical psychology, and just plain, old-fashioned salesmanship. They must sell the safety habit.

Supervision is the art of controlling the performance of others for the purpose of producing at a planned rate. And this art must

include a good working knowledge of human engineering which will convey clearly and unobtrusively to employees the need for safety consciousness at all times. Unless a supervisor has this ability he may know all about the causes of accidents and still fail to keep accident rates down.

Under the Hiram Walker program, now two years old, 250 foremen and assistant foremen learn what makes employees tick, why a person acts in an unsafe way, why he's failing to follow instructions. They study the different types of personalities they have to deal with daily—the aggressive, insecure, antagonistic, indifferent, cooperative—and the best method to use in approaching each type. They are told about the basic drives that make people act the way they do—the motivating desires for acceptance, recognition, challenge, security, and comfort.

Salesmanship and good supervision are very much alike, Hiram Walker trainees are told in the course which consists of an hour session once a week for five weeks. Great stress is laid on the point that the safety habit can best be instilled not by direct commands or threats but rather by friendly suggestion and interest in the employee's point of view.

The program is based on the assumption that even after the company provides a good working environment, safe equipment, and effective mechanical safeguards, there still will be accidents, the majority of which will result from faulty acts of individuals. The supervisor's vital role is to keep this inevitable human factor down to a controllable minimum.

Every possible avenue of approach is used to further the safety program. A recent forward step was the formation of a Management-Labor Safety Advisory committee, which meets at regular intervals and concerns itself with the solution of various safety problems as they arise. Thus the groundwork is being laid to sell the safety habit directly to the employee through the supervisor and with the cooperation of the trade unions, which are so vitally interested in accident prevention.

Attesting to the success of the program is the fact that in 1954 the company had the best accident frequency rate in its history. Contributing a good deal to this performance is the heavy emphasis on the art of human relations, which supervisors are encouraged to use in their efforts to secure employee cooperation. Other parts of the program are concerned with the history of industrial safety, causes of accidents, effects of accidents and fires on production, and a final summary, discussion, and quiz.

Following is a step-by-step guide Hiram Walker supervisors use to make personal contact with employees in the effort to sell them on the benefits of accident and fire prevention:

1. Make probable causes of accidents known to employees. Explain why you selected them. Show them how the right way is a better way and that it is just as easy to develop the right habit as the unsafe habit.

2. Give them the opportunity to say what obstacles they think might stand in the way of doing the job the way you want it done. If the individual talks, the underlying cause of improper performance may be found.

3. Don't be too anxious to prove the employee wrong. Confidence will increase if he realizes that you are not arbitrary and are willing to listen to possible errors in your opinion. Establish the fact that you want him to work smarter, not harder.

4. Explain why you are talking about wrong methods even though an accident has not occurred.

5. Make it clear that it is your intention to follow up and make checks for any failures to adhere to established methods.

6. Establish a definite routine to check for violations of the right working methods.

7. When violations are observed, don't ignore them. Talk with the person involved. It is at this point that the supervisor can exercise his qualifications for salesmanship, persuasion, and practical psychology.

8. Give the employee an opportunity

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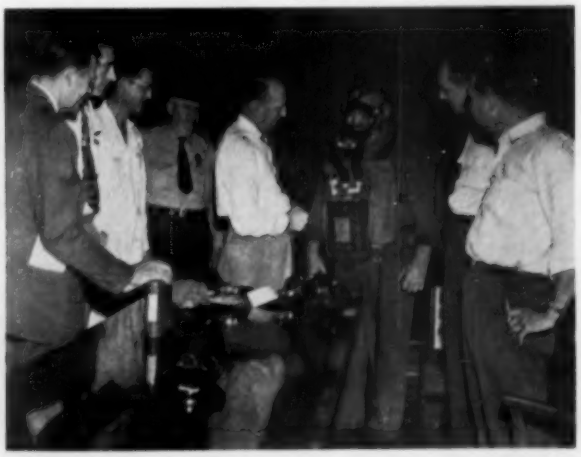
The Management-Labor Safety Advisory Committee of Hiram Walker & Sons, Inc. L. to r., Vance Heynen, Bottling; Marion Lazisky, Maturing; James Doyle, president, Local 55, Distillery Workers; Paul Musgrove, director, Industrial Relations; James H.



Snyder, manager, Safety and Plant Protection; Bernard Mangan, Yeast; Ralph Calligan, manager, Shipping and Receiving; Thomas Carroll, distillery engineer. At right, foremen learn use of self-contained oxygen breathing apparatus.

The world's largest machine shop. Shown here are only a few of the more than 500 machine tools displayed.

Built-In Safety Featured At Machine Tool Show

GROWING interest on the part of machine tool builders and buyers in the safety of operating and maintenance personnel was evident in the design of many of the 523 new models displayed September 6-17 at the Machine Tool Show in Chicago.

Sponsored by the National Machine Tool Builders' Association, the show was the first in eight years.

Among the outstanding safety features noted were:

—Cover guards over power transmitting parts (particularly v-belt drives) which are a basic part of the machine frame.

—Substantial guards over the flywheels and gears of power presses and similar equipment.

—Emphasis on proper lighting. Lights over the bed area on the sides or in the back of power presses were almost universal.

—Better rail and table clamping mechanisms on most machine tools.

—Electrical, hydraulic, and coolant lines enclosed.

—Hinged cover guards over chucks on lathes and similar equipment.

There was increasing evidence of guards as standard equipment, either designed especially to protect against new hazards created by new operations or built in as a part of a production or appearance feature. In the main, machine guards still are optional equipment, but even these are made available in more cases than ever before.

Guardrails around the top of this press provide protection and easy access for maintenance purposes. Ladder telescopes out of the way.

Pendant controls are more and more in use, providing centralized control from a safe position.

Several machine tool builders are now making available a guard over the chuck on engine, turret, and automatic lathes which prevents contact with projecting moving parts. This guard, of a type urged by safety engineers for many years, is standard with some machines, optional with others.

Power Presses. Some straight-sided hydraulic presses were shown with telescoping ladders which pull down for use by maintenance men and guard rails around the top of the machine. Many of the new presses had all power-driving portions enclosed and some featured non-repeat clutch mechanisms, as opposed to

single-stroke controls. Some models had all electrical conduit, air piping, and lubrication tubing enclosed within frame line.

Power-driven worm and rack type devices are available for inclining the press on inclinable presses.

Most presses are now equipped with friction clutches which permit the ram to be stopped at any point in the operating cycle. This is a vast improvement over the old positive-type clutches which allowed the ram to move through a complete cycle before stopping when the press was tripped.

Automatic Screw Machines. Some of these machines are available with covers to confine coolants. In addition to preventing oil mists in the atmosphere and keeping coolants off the floor, these covers completely enclose all moving parts while the machine is in operation.

Vertical Turret Lathes. Typical of the safety features on these machines were pendant controls which may be raised and lowered by power and moved right or left in a 180° arc, electrical controls which are built into the bed and protectively concealed, and enclosures over all drive units and shafts. Many boring and turning mills, vertical lathes, and milling machines are including as standard equipment guard rails or apron guards around the revolving tables.

Grinders. At least one model featured a v-belt cover which is a casting—actually a part of the machine. Other grinders shown included models equipped with more magnetic chucks than previously provided.

Transfer Machines. Here again the transmission and v-belt drives were guarded.

Hydroforming machines. These are essentially an advancement over the old metal spinning lathes where the operator must hold a hand tool against the blank.

Automatic oil lubrication systems are another safety feature of many new models. Others were lubricated from a central point for the first time. These features eliminate the need for maintenance men to use ladders or to climb over machines and also minimize mechanical failure caused by insufficient lubrication which could be hazardous to operators.

A safety switch has been developed which automatically stops the machine if any part is not properly lubricated.

There was more evidence of electric, pneumatic, and hydraulic installations built to conform to Joint Industrial Committee (JIC) standards, even to the extent that special attention is called to this fact in machine tool builders' advertising material.

Outstanding general features of the show included:

—An advance in automation and automatic controls.

—A step-up in accuracy, which is now measured in millionths of an inch instead of thousandths.

—A general increase in the size and operating speeds of all types of machine tools.

Most of the machines displayed were in almost constant operation during the show, many of them turning out finished products. Raw materials were being turned,

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FACTS AND FIGURES
about the Machine Tool Show

Total registration: 102,631 from 28 countries.

Displays included 523 new machine tools valued at more than $20 million.

Displayers included 190 companies.

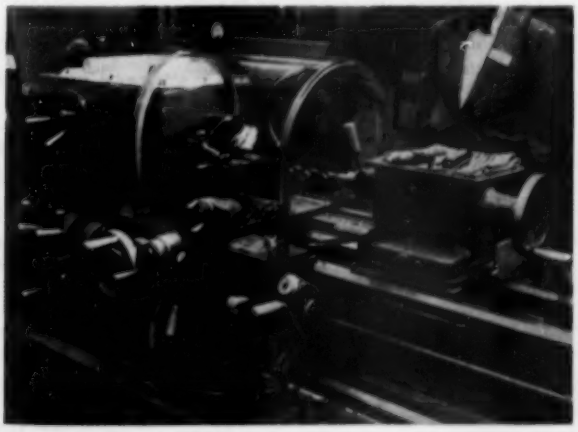
Exhibition space: 488,000 square feet (11½ acres).

Cost of the show: about $1 million.

Time involved: it took two months to set up the machines; three weeks to tear them down.

Next show: in Chicago in 1960.

Clear plastic guards on these machines have full-length hinges at top and are supplemented by two magnetically-held chip guards.



Although installed principally for protection of visitors, guards of this type are practical for production use.

FOR DISTINGUISHED SERVICE

National Safety Council Awards for Outstanding Records

THREE TYPES of awards are given by the National Safety Council to industrial units in recognition of outstanding performance in accident prevention:

1. THE AWARD OF HONOR is available to units whose records, though not perfect, meet rigorous standards of excellence. These standards take into account the previous experience of the unit as well as the experience of the industry in which it operates. A unit must qualify on both frequency rate and severity rate. The Award of Honor is available also to units which complete 3,000,000 man-hours without a disabling injury.

2. THE AWARD OF MERIT has similar, but less exacting requirements. Minimum number of injury-free man-hours needed to qualify is 1,000,000.

3. THE CERTIFICATE OF COMMENDATION is available only for injury-free records covering a period of one or more full calendar years and totaling 200,000 to 1,000,000 man-hours.

Details of eligibility requirements may be obtained by writing to the Statistics and Research Division, National Safety Council.

★ ★ ★ ★ ★

AWARDS OF HONOR

Aluminum Co. of America, New Kensington (Pa.) Works.

Bethlehem Steel Co., Inc., Bethlehem (Pa.) Works.

Coats & Clark, Inc., Pawtucket (R. I.) Plant.

Dan River Mills, Inc., Danville, Va., Division No. 1.

Ford Motor Co., Chicago Assembly Plant.

General Electric Co., Lynn (Mass.) Plant.

Pacific Telephone & Telegraph Co. and Bell Telephone of Nevada, San Francisco, Entire company.

United States Steel Corp., National Works, National Tube Division, Pittsburgh, Pa.

AWARDS OF MERIT

Aluminum Co. of America, Richmond (Ind.) Plant.

American Air Filter Co., Inc., Plant No. 3, Louisville.

American Cyanamid Co., Warners Plant, Linden, N. J.

Armco Steel Corp., Middletown (Ohio) Plant.

The Atlantic Refining Co., Philadelphia Refinery.

Behr-Manning, Division of Norton Co., Troy, N. Y.

The Cincinnati (Ohio) Gas & Electric Co., Entire company.

Continental Can Co., Baltimore, Md., Baltimore Plant No. 9.

Davison Chemical Co., Division of W. R. Grace & Co., Curtis Bay Works, Baltimore.

Ford Motor Co., Five awards: Engineering Staff, Dearborn, Mich.; Metuchen Assembly Plant; Monroe Plant; St. Louis Assembly Plant; Standard Transmission & Radiator Plant, Dearborn.

General Electric Co., Four awards: Aircraft Gas Turbine Division, Evendale Plant, Cincinnati; Anniston Tube Plant, Anniston, Ala.; Large Steam Turbine-Generator Department, Schenectady.

B. F. Goodrich of Canada, Ltd., Kitchener, Canada, Plant

Hercules Cement Corp., Stockertown, Pa., Unit.

Ideal Cement Co., Colorado Division, Portland, Ohio.

International Harvester Co., Evansville (Ind.) Works.

Mississippi Power & Light Co., Jackson, Entire company.

Missouri Portland Cement Co., St. Louis Plant & Quarry.

Pacific Gas & Electric Co., San Francisco, Three awards: Colgate Division; Drum Division; Shasta Division.

Piasecki Helicopter Corp., Morton, Pa. Entire company.

Radio Corp. of America, Indianapolis Location.

Westinghouse Electric Corp., Two awards: Small Motor Division, Lima, Ohio; Standard Control Division, Beaver, Pa.

West Point Manufacturing Co., Langdale (Ala.) Mill Division.

Zia Co., Los Alamos, N. M. Entire company.

CERTIFICATES OF COMMENDATION

Ideal Cement Co., Boettcher Plant, Fort Collins, Colo.

Medusa Portland Cement Co., Wampum (Pa.) Plant.

For skidproofing, sprinkle ZORBALL *freely on icy, wet walks, drives, etc. — or spread on floors to absorb oil, grease, paint, chemicals.*

Wyandotte ZORBALL underfoot makes icy areas safe!

Eliminate the danger of slipping to both workers and vehicles this winter, with skidproof Wyandotte ZORBALL! A thin layer of ZORBALL on icy walks, platforms, loading and shipping docks, ramps, and driveways will prevent accidents and work delays. And ZORBALL won't cake, mud, dirt, or track!

All-purpose ZORBALL is the safest floor absorbent you can buy! It has no effect on fabric, wool, metal, rubber, or skin . . . absorbs water, paint, oil, grease — any liquid — and it is *fireproof*, even when saturated with combustible liquids. Use it indoors or outdoors . . . on any type surface.

You'll save, too, with ZORBALL'S low use-cost, resulting from a greater resistance to breakdown than any other floor absorbent!

Try a free sample, now! Mail coupon at right, today, or call your Wyandotte representative or jobber. *Wyandotte Chemicals Corp., Wyandotte, Michigan. Also Los Nietos, Calif.*

Wyandotte
CHEMICALS

Helpful service representatives in 138 cities in the U.S. and Canada

Largest manufacturer of specialized cleaning products for business and industry

MAIL COUPON TODAY FOR FREE SAMPLE

Wyandotte Chemicals Corporation
Wyandotte, Michigan

☐ Send free sample of ZORBALL
☐ Have representative call

Name_____
Firm_____
Street_____
City_____ Zone____ State_____

(Fiction)

Reunion with his former assistants at the Congress gives the Safety Engineer the happy feeling that he has helped train two good men

MY BOYS

By BILL ANDREWS

October 21, 1955.

I'M BACK in the office briefly on the afternoon of the close of the National Safety Congress. There are a few reports to clean up, a few letters to sign but nothing to really hold the mind.

So, I try to look back across the crowded week of meetings and speeches and banquets and luncheons—a week of hotel lobbies and hasty encounters with old friends. A week of riding herd on a large delegation of safety committeemen, foremen, and front-office brass from the plant—all of them attending their first Congress and finding it confusing and rewarding.

* * *

For myself, I think the most profitable single event of the week was a dinner for three in a booth in a noisy, crowded little steak house and bar on the Near North Side.

The three were Harry Dexter, Jim Mason, and myself—three men who were once a compact team, working shoulder to shoulder at Jackson-Barnes to push down a stubborn accident rate.

We aren't a team anymore. Jim quit as my right hand man some years ago to take over the job of safety director for a big machine manufacturer in Cincinnati. That moved Harry up to the post of top assistant. Then, six months ago, I resigned to become safety director of Exsteel in Chicago, and Harry moved into my old Jackson-Barnes spot.

In one sense, these two are my boys—just as I am old Lou's boy, old Lou of Monarch who broke me in as a cub and sent me out to a bigger job.

There's a warmth between us still, even between Jim and me, in spite of the fact that it was, at least in part, disillusionment with me that sent him job-hunting. Yet that was a high-policy budget fight, and there was never a breach over any specific issue of safety engineering theory or practice.

Yes, there is warmth between us, in the memory of the old fights fought together, in the sense of the team plays contrived and executed.

And yet, though these are my boys and I love them, and I am their "Old Man" and they love me, that dinner was mainly one long, running, hot argument.

We didn't talk Exsteel or Jim's plant in Cincinnati. The talk was almost all Jackson-Barnes, our common ground.

I wanted, of course, to know how things were going—how Harry had fared in continuing the program I had built from nothing and then turned over to him. And Jim, remembering both the victories and defeats he had seen in his days there, also wanted to know whether answers had been found to the questions he felt he left unanswered.

I think Jim and I meant well enough—but I supposed we tended to patronize and sympathize with Harry; Harry the kid who had come to us from engineering school only five years ago; Harry who had fumbled and stumbled so often as he took his first safety engineering steps in the face of the bitter realities of industry.

Whether we really patronized him or not, Harry took it as if we did. His jaw stuck out a little, and he proceeded to blast back at both of us.

"Look, Jim," he said. "You quit in a row about budget. But I bet you've crawfished on budget items yourself since that day, trading a little exaggerated submissiveness to sneak in something you wanted badly. I know I have—and I'm just sweating out my first preliminary annual budget.

"And another thing, Jim, you thought you had the answer to that guarding deal on the big dies on the hoist frames. I just pitched the old program. I've got a meth-

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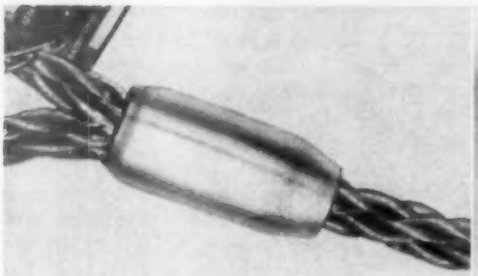
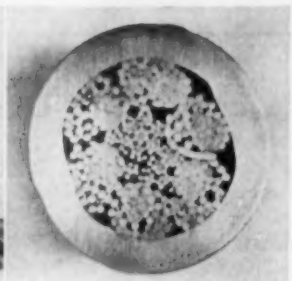
Tuffy® SLING NEWS

Vol. 1 — Published Monthly in Leading American Trade Magazines by Union Wire Rope Corp. — No. 1

DOUBLE GOOD NEWS ABOUT SLINGS



A heavy walled, streamlined steel ferrule is pressed on over tucked eye splice of Tuffy machine braided wire fabric from which sling is made.



Under exceedingly great pressure, the metal of the ferrule is flowed into fabric interstices.

Tuffy Makes Sling History Again With New Ferrule

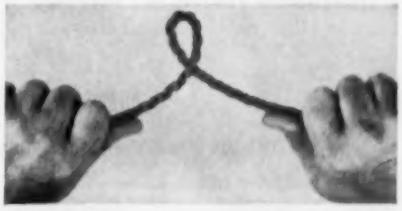
Tuffy Slings upset sling history quickly when introduced. The patented machine braided Tuffy Sling fabric has been upsetting sales and service records ever since.

Now, Tuffy Slings are making history again with a streamlined metal ferrule squeezed on over tucked eye splices so tightly that the eye splice has strength equal to that of the machine braided wire fabric. It makes Tuffy Slings stronger and safer. The ends of the tapered ferrule are swaged tightly to the fabric leaving no edges to hang up on loads or to injure workers' hands in hitching to and unhitching from loads. This, coupled with the great flexibility of Tuffy machine braided sling fabric, makes Tuffy Slings the handler's favorite.

High Strength of Famous Tuffy Machine Braided Flexible Wire Fabric Equalled in Eye Splice

Tuffy Slings' unusual resistance to kinking and the ease with which kinks are straightened out without damage to strands has piled up sling savings through longer service life.

Now, more advantages, bigger values are added to Tuffy Slings. Eye splices are made as strong as sling fabric with steel ferrule pressed on under great pressure over eye splice tucks. It's streamlined with ends tapered smoothly to fabric for safer, easier, faster hitching and unhitching on loads.



Your Tuffy Distributor Saves You Money!

Tell him what your future requirements might be. He'll keep a good stock for you to draw against. Call him soon. He's the man who can supply the biggest value in Tuffy Slings and Tuffy Hoist Lines to team up with your Tuffy Slings.

New Edition of Tuffy® Sling Handbook FREE — Mail Coupon Now

This new 60-page Sling Handbook is a completely revised edition of the famous Tuffy book that first made sling news several years ago. The new edition shows you why Tuffy's new tuck splice and pressed-on ferrule can speed up sling-loading work, improve safety records. It contains complete information about a full line of factory-fitted Tuffy Slings, nearly a dozen new standard fittings available, and complete data and charts on all Tuffy Slings. It also has a brand new engineer's notebook and a valuable rigger's manual.

Get FREE Sling Handbook Mail Coupon Today

We just want you to see what a difference the new Tuffy ferrule and tucked splice make. We want you to have the advantages of this big, fully illustrated and charted sling guide. No obligation. Write now.

union Wire Rope corporation

Specialists in high carbon wire, wire rope, braided wire fabric, stress relieved wire and strand.

2224 Manchester Avenue, Kansas City 26, Missouri

MY NAME_____ TITLE_____

COMPANY NAME_____

ADDRESS_____

CITY_____ ZONE____ STATE_____

12

SAFETY

Off the Job

Program suggestions for company activities and announcements of Council services will be carried in this department. For information on program planning write G. T. O'Neill, OTJ Safety Committee, National Safety Council Staff Representative

DuPont's O-T-J- Safety Merit Award Program

The Off-The-Job Injury Prevention Program of the E. I. duPont de Nemours & Company, Inc. is company-wide in scope. It was developed after study of off-the-job injury programs which had been in existence in several of their plants for some 10 to 15 years. This study revealed the need for more specific attention to the prevention of off-the-job injuries.

In January 1953, a bulletin discussing the need for off-the-job safety and explaining a system to be used for tabulating O-T-J accident experience was distributed to all plant managers, laboratory directors, members of safety and fire protection divisions, general managers, and department heads.

The form in Fig. 1, was developed for use by each location to summarize their monthly O-T-J accident experience. Man-days lost include actual days lost from work as well as holidays, vacations, and other non-scheduled time during which employees are unable to work because of injury.

The O-T-J frequency experience is figured by multiplying the number of employees on the payroll at the end of the month by 312 hours exposure per employee per month. This factor considers the "active" O-T-J hours of a five-day week plus "active" hours of two rest days (40 plus 32 equals 72) multiplied by 4½ weeks per month, to give 312 O-T-J exposure hours per employee per month.

The frequency rate of the off-the-job injuries is then calculated by multiplying the total number of injuries by one million and dividing by the total O-T-J hours of exposure.

In order to provide an equitable comparison between locations, a measure of effectiveness of programs, and an indication of the cause of injuries, a monthly O-T-J safety performance chart is compiled and distributed. It shows the number of O-T-J injuries, frequency rates, days lost, and a summary of the location and cause of the injuries. Fig. 2 shows a portion of a typical chart.

The Safety and Fire Protection Division publishes a bulletin en-

DUPONT

OFF-THE-JOB SAFETY PERFORMANCE SUMMARY

REPORTING UNIT Indiana Ordnance MONTH June YEAR 1955

NUMBER OF EMPLOYEES 2876 EXPOSURE HOURS 897,312

NUMBER OF OFF-THE-JOB MAJOR INJURIES (INCLUDE FATALITIES) 22

NUMBER OF FATALITIES 0 MAN-DAYS LOST THIS MONTH 249

LOCATION and CAUSE OF INJURIES

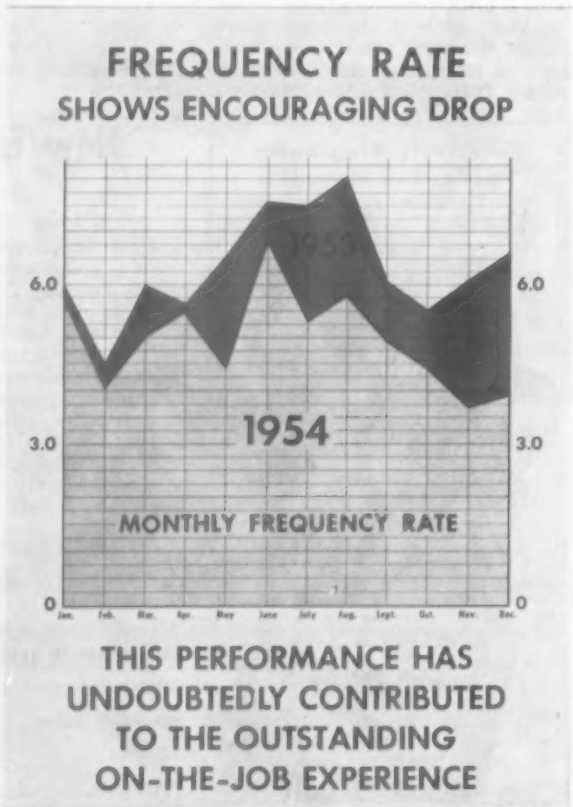
CASES	TRANSPORTATION	CASES	HOME	CASES	PUBLIC
2	AUTO, TRUCK		ELECTRICITY	2	ANIMALS, INSECTS
	BICYCLE	5	FALL, SLIP		EXPOSURE—HEAT, COLD
	BUS, STREETCAR		FIRE, EXPLOSION		FALL, SLIP
1	MOTORCYCLE		HOT OBJECT, MATERIAL	1	FIGHT, ASSAULT
	RAILROAD	4	IMPROPER LIFTING		FIREARM
	OTHER	2	MACHINERY, TOOLS		FIRE, EXPLOSION
			SHARP OBJECT	2	SPORTS
		2	STRUCK BY OBJECT		STRUCK BY OBJECT
		1	TOXIC MATERIAL		OTHER
		1	OTHER		

REMARKS:

1. Fractured arm and foot—auto accident (Auto, Truck-Transportation).
2. Contused back, leg and shoulders—auto accident (Auto, Truck-Transportation).
3. Contusion and lacerations of hands and arms—motorcycle accident (Motorcycle-Transportation).
4. Sprained right ankle—turned on porch at home (Fall, Slip-Home).
5. Strained back—fell off ladder painting house (Fall, Slip-Home).
6. Sprained ankle—slipped on ear of corn in barn (Fall, Slip-Home).
7. Contusion and abrasions of right knee (infected)—fell in gravel at home (Fall, Slip-Home).
8. Fractured rib and pulled ligament—taking radiator out of truck (Improper Lifting-Home).
9. Strained back—lifting a big chair at home (Improper Lifting-Home).
10. Strained left side—lifting ice box at home (Improper Lifting-Home).
11. Strained back—lifting bag of sand into and out of auto (Improper Lifting-Home).

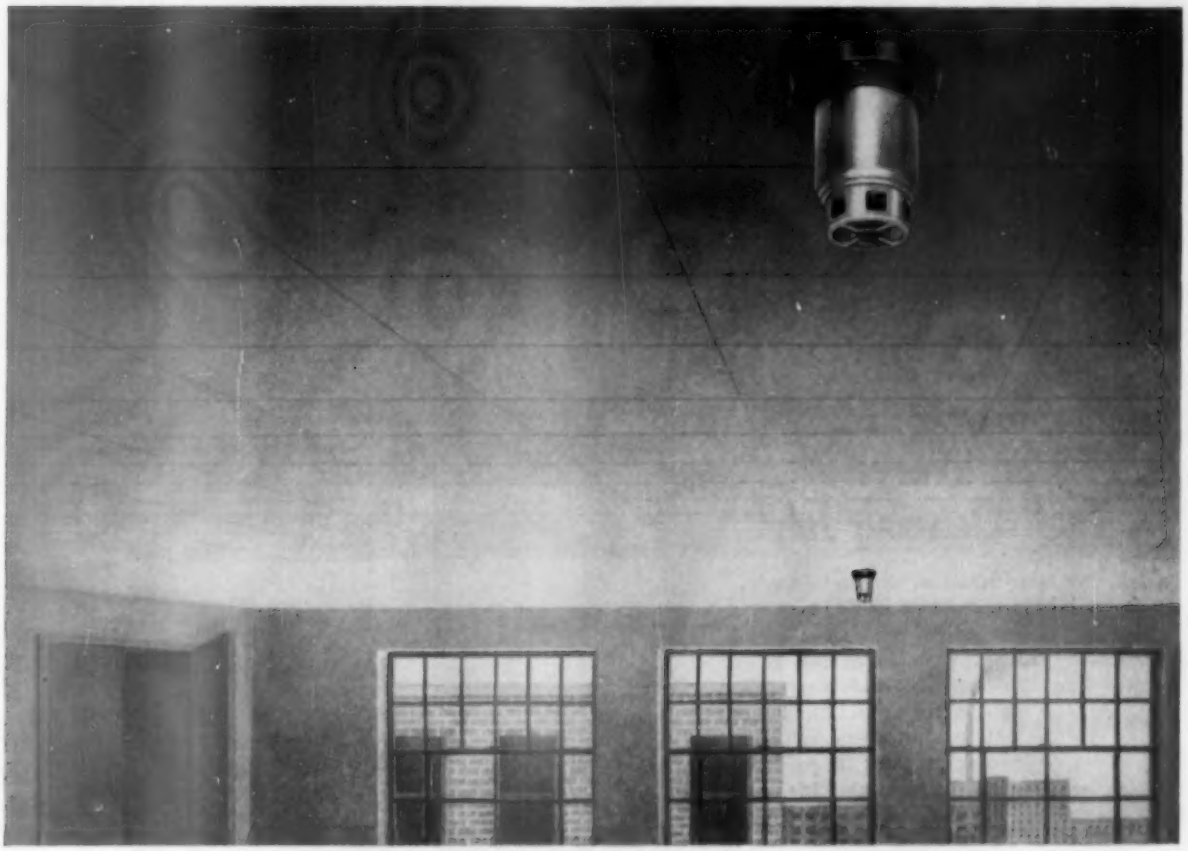
SIGNED C. H. HERGER THIS SAFETY SUPERVISOR

Fig. 1 (above). Monthly summary form used by duPont. Chart (right) shows success of the company-wide O-T-J safety program.



New, radio-active, automatic fire guard!

C-O-TWO PRE-DETECTOR SYSTEM



Each pre-detector head protects up to 3,600 square feet of area . . . harmless radio-active element utilizing ionization chamber principle quickly detects all forms of fire . . . requires only simple two-wire circuit and insignificant wall space for controls.

This completely new and positive means of spotting fire is just what you've always needed and wanted . . . detects in the earliest stage, invisible combustion gases, visible smoke, slow smoldering, as well as open flame. The C-O-TWO Pre-Detector System is simple to install, extremely economical to maintain and doesn't depend on thick smoke or heat for actuation.

As many pre-detector heads as necessary can be connected together in a single circuit and up to 16 separate circuits or spaces handled by one system. With a single circuit the pre-detector heads are connected directly to the fire indicating cabinet, while with multiple circuits the pre-detector heads are first connected to one or more space indicating cabinets capable of visually showing by number the exact location of the fire. Relays perform such functions as sounding alarms, closing fire doors, shutting down ventilation and releasing fire extinguishing systems.

The C-O-TWO Pre-Detector System has been subjected to extensive testing and carries Underwriters' Laboratories, Inc. listing, as well as Factory Mutual Laboratories approval. Proven pilot installations have been made in such diversified properties as a television station, an electric power company network analyzer room, a railroad signal tower, an airline flight training equipment room and the offices of an insurance company.

Don't take unnecessary chances any longer . . . the extensive fire protection experience of PYRENE—C-O-TWO over the years is at your disposal without obligation. Get complete facts about this new C-O-TWO Pre-Detector System today!

Pyrene

PYRENE — C-O-TWO

NEWARK 1 • NEW JERSEY

Sales and Service in the Principal Cities of United States and Canada

C-O-TWO

COMPLETE FIRE PROTECTION

portable fire extinguishers . . . built-in fire detecting and fire extinguishing systems

CARBON DIOXIDE • DRY CHEMICAL • VAPORIZING LIQUID • SODA-ACID • WATER • CHEMICAL FOAM • AIR FOAM

Scott Air-Paks

Cut Repair and Maintenance Costs, Safely!

Right — Old Method. Blowing air into chemical storage tank for 24 hours before man can safely enter.

Below — No Waiting. No Down Time with Scott Air-Pak protection. Man enters and does the job immediately, safely.

SAVED 24 HOURS on every Tank Cleaning Job

• Many times an old established practice is accepted as "The way it has always been done". No attempt is made to change it. Blowing air into a chemical storage tank from 12 to 24 hours before permitting a man to enter to clean or paint it, is a typical example! It's a slow and costly method. How much simpler and lower in cost to equip a man with a Scott Air-Pak — open the tank and let him go to work Immediately — Safely and Quickly!

On Hazardous Jobs Scott Air-Paks Help Management and Labor Breathe Easier

Does tank cleaning and painting play a part in your process? Let us tell you more about the Scott Air-Pak Way.

Write for free booklet "Scott Air-Paks Save Money, Man Hours and Men for Industry!"

Scott

SAFETY EQUIPMENT DIVISION

SCOTT AVIATION CORP.

211 ERIE STREET LANCASTER, N. Y.

Canada: Safety Supply Co., Toronto — Branches in principal cities
Export: Southern Oxygen Co., 15 West 57th Street, New York 19, N. Y.

titled "Items of Interest," which is distributed throughout the company. O-T-J safety program ideas received from the various locations are published in the bulletin and have been the basis for many plant safety meetings and programs.

The division collaborates with

SUMMARY OF INJURIES

TRANSPORTATION	1954	DECEMBER
Airplane	4[1]	
Auto, Truck	368[9]	40[1]
Bicycle	1	
Bus, Streetcar	3	
Motorcycle	16[1]	1
Railroad	1	
Other Cause	42	1
	435	42
HOME		
Electricity	2	
Fall, Slip	288[1]	20
Fire, Explosion	13	2
Hot Object	22	
Improper Lifting	54	4
Machinery, Tool	50	4
Sharp Object	48	3
Struck by Object	63	4
Toxic Materials	2	
Other Cause	38	3
	580	40
PUBLIC		
Animals, Insects	21	
Exposure to Heat/Cold	47	
Fall, Slip	82	6
Fight, Attack	27[1]	1
Firearm	14[1]	2[1]
Fire, Explosion	2	1
Sports	144[1]	12[1]
Struck by Object	15	1
Other Cause	8	1
	360	24
GRAND TOTAL	**1375**	**106**

OFF-THE-JOB FATALITIES

1954 . . . . . 27 DECEMBER 3

Fig. 2. Superscripts indicate number of fatalities.

the Public Relations Department in developing skeleton articles on subjects of O-T-J safety, which are then expanded and localized by plant paper editors for use in employee publications. Literature releases describing pieces pertinent to off-the-job safety problems are also distributed, with a copy of the piece, for use in planning off-the-job safety programs.

Results of their program activities are as follows:

1. A 40 per cent improvement in the on-the-job performance.
2. A 20 per cent improvement in the off-the-job injury performance.
3. Employees reacted enthusiastically to the enlargement of the safety program.

—To page 128

Here is why

YOU CAN DEPEND UPON LOWERY SLINGS

THIS cross section of Lowery Brothers swaged hemp core wire rope slings shows how the steel (not aluminum) flows in between the helox of the wire rope. This forms a solid mass of steel incorporating fittings made from 1020 seamless tubing of the highest quality.

To assure our customers the utmost safety and performance, the wire rope used in our swaged sling eyes or loops is unlaid, then formed into a loop and laid back together in the same manner. Since we do not rely on the swaged fitting alone but use a flemish eye, we produce one of the safest slings utilizing pressed-on fittings which cover all our wire ends.

Actual unretouched photograph of cross-section view of Lowery swages.

(This actual photo of our newly designed swaged fitting shows the advantage of the longer tapered nose which easily passes under a load and can be retrieved without snagging or hooking.) Lowery construction permits far greater flexibility than hand spliced slings and produces a lighter and much easier handling sling.

We have tested a half-inch 6 x 19 I.W.R.C. with a 15″ eye at each end, but without a metal fitting or any other fastener. This was pulled to 27,300 pounds before four strands and the wire center parted. Many similar tests have proved that Lowery Brothers swaged wire rope slings are far superior than slings using just a turned eye and an aluminum fitting to support the load (a cracked fitting can cause injury or death to workers and often results in damage to the equipment being handled). Lowery Brothers will send you certified copies of tests made with our swaged slings.

We have a record of 95 per cent reduction in hand injuries through the use of our swaged slings over the obsolete hand splice sling which leaves protruding wire ends.

Due to our unique production methods and high quality materials, Lowery Brothers gives you a better wire rope sling at lower cost—most important of all, Lowery slings are SAFER!

We specialize with metal producers and feature a special metal producer price, plus immediate delivery from any of our three plants: New Orleans, Louisiana, Portland, Oregon, and our home office and plant in Chicago.

Our Mobile Display Van incorporating all types of swaged wire rope slings offers your key personnel an opportunity to appreciate the vast difference between Lowery Brothers and ordinary slings. You can arrange to see this free display without obligation, by simply writing our home office.

LOWERY BROTHERS 9332 SO. ANTHONY AVE., CHICAGO 17, ILL.

CHICAGO • NEW ORLEANS • PORTLAND

Thousands of lights gleam like jewels in this night photo taken from the northeast corner of the main Powerama grounds. The "world's fair of power" attracted more than two million visitors.

Among the most popular attractions at Powerama was the dramatic new "Aerotrain." It is capable of carrying 400 passengers at speeds over 100 mph with more economy than conventional trains.

Pageant of Power

Dancing tractors and dancing girls entertain and instruct two million visitors at General Motors' spectacular exposition

POWERAMA, General Motors' spectacular exhibition of Diesel and gas turbine power, closed a 26-day run on September 25 after being seen by 2,218,412 visitors.

Called a "horsepower extravaganza" by *Life* magazine, this "world's fair of power" drew international attention. Visitors from all over the United States and many foreign countries saw developments in the Diesel and gas turbine engine fields dramatized on a scale never before attempted. Among the visitors were more than 100,000 school children whose futures will be profoundly affected by the harnessing of these forces. The crowds were the largest since a Century of Progress—Chicago's world's fair was held on the same spot in 1933 and 1934.

Powerama, with its 253 exhibits, demonstrated how the two efficient workhorses, the Diesel and gas turbine engines, are remaking the face of America, raising standards of living and holding out intriguing promises for the future.

These two sources of power are giving the nation new muscles to build roads, cut timber, drill wells, clear and plow fields, propel ships and aircraft, drive trains, trucks, and buses, and run machines.

Trains always have a strong appeal to the public and the new lightweight "Aerotrain" was one of the most popular exhibits. The coaches each carry 40 passengers in air-conditioned comfort and meet all governmental and AAR safety requirements by a wide margin. The center of gravity is exceptionally low — 45 inches above rail as compared with 55 inches for standard coaches. All connections are automatically coupled when cars are brought together.

Another exhibit of significance in safe rail travel was the electric test car which recorded the effect of high speeds on wheels, axles, and car bodies.

The kitchen of tomorrow attracted large crowds each day. Also featured were the XP-21 Firebird, the first gas turbine automobile built and tested in the United States, and the GM Turbocruiser, a transit coach, operated by the same type of power.

Equipment that is doing the heavy work in transportation, industry and agriculture included:

- A sawmill cutting up giant timber.
- A cotton gin in operation.
- Oil drilling rigs in actual operation.
- A working demonstration of an aluminum foundry.
- Locomotives and other railroad equipment.
- Tractors, earthmovers and dump trucks.

Many of the exhibits gave visitors a chance to operate heavy machines themselves, among them a crane lifting an 8,000-pound ball.

There were demonstrations of

—To page 122

New! Stac-Vent

Stops Liquid Splash
Greater Safety
More Comfort

WATCHEMOKET
STAC-VENT
eye SAVERS

. . . a new principle in goggle ventilation

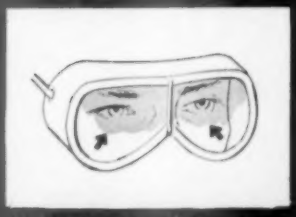
Greater safety . . . No liquid, chemical or other hazard can reach the eye. Ventilation holes are protected under the "Stac-Vent" hood located properly to eliminate lens fogging. Methacrylate or Acetate Lenses and Vinyl frame protect against all hazards: impact, chemical splash, sparks, molten metal.

Safe Ventilation . . . "Stac-Vent" provides draft ventilation at the top and center of the goggle (where warm, moist air normally accumulates). Large openings for ventilation are possible because they are safely shielded by the "hood".

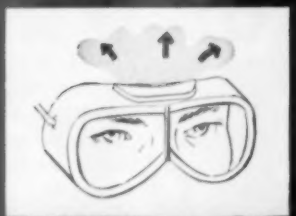
More comfort . . . Soft Vinyl Frame formfits the face. Goggles are lightweight . . . hug the face without pressure, thanks to soft edge fins which yield to the contours of the nose and face.

Choice of Frames and Lenses . . . Soft Vinyl Frames are available in clear, transparent green or opaque black with STAC-VENT, Regular (Holes) or Screen Ventilation; also no ventilation.
Furnished with clear, light, medium or dark green Methacrylate Lens for heavy impact.
Furnished with clear or medium green Acetate Lens for light impact.

Here's How It Works



Moist air accumulates at top inside of goggle causing inside of lens to fog.



STAC-VENT drafts off hot, moist air from inside goggle just as a chimney carries off smoke.

PLUS ALL THESE FEATURES

Fits over all prescription glasses . . . Extra wide 6" lens and large frame fits over all prescription glasses — metal or horn-rimmed. Soft Vinyl Frame is translucent (except opaque black) for partial side vision. Front of frame protrudes to act as bumper, protecting the lens surface when thrown on table or floor.

Optically correct, shatterproof lenses . . . Eye Savers Methacrylate and Acetate Lenses are guaranteed optically correct. Cannot cause image distortion with resultant permanent injury to the eyes. They are shatterproof — cannot splinter with impact.

Lenses are easily replaceable . . . no special tools or skill is required to replace lenses. Positive Lens Lock Bar is easily removed . . . new lens inserted (soft vinyl frame spreads at finger touch) . . . new Lens Lock Bar (supplied with each replacement lens) is put in place.

See Your Authorized Eye Savers Supplier, or write direct for full Information on the new "Stac-Vent" and other modern Eye Savers

Quality Eye Protective Equipment ***Made by the Leaders in Plastics***

WATCHEMOKET OPTICAL CO., INC.

234 West Exchange St., PROVIDENCE 3, R. I. *In Canada: Levitt-Safety Limited, Toronto 10, Montreal 26*

CONGRESS QUOTES

Practical thoughts from papers delivered at sessions of the 43rd National Safety Congress

When Correction Is Needed

Science confirms something everybody has suspected for a long time—that you catch more flies with molasses than with vinegar.

Psychologically, the best results are obtained through private reprimand or public commendation of people. The worst results follow from the use of sarcasm either privately or in public.

In a psychological experiment the effects of five types of supervisory devices on the amount of work turned out were studied. The motivation devices used were public reprimand, private reprimand, and public praise. In addition, the reprimands using sarcasm were studied. Each motivation was then rated according to whether it brought about an improvement, no change, or less work.

Praise brought improvement in 91 per cent of the cases studied and worse results in only 1 per cent. Public reprimand using sarcasm, on the other hand, resulted in worse production in 77 per cent of the cases and improvement in only 10 per cent. Private reprimand using sarcasm gave similarly adverse results—65 per cent of the cases resulted in less work and only 18 per cent showed any improvement.

—W. A. Eggert, Chief Psychologist, Lumbermen's Mutual Casualty Co. (Occupational Health Nursing)

Rehabilitation Results

One-third of the disabled workers treated in a program of the United Mine Workers of America have been successfully rehabilitated.

Of the more than two million beneficiaries for whom medical and hospital services have been provided by the UMWA welfare and retirement fund, some 317,000 were recipients of corrective measures to overcome a disability or restore the individual to the fullest usefulness of which he was capable.

Approximately one-third, or 113,000 workers, were able to engage in some sort of useful occupation earning more than $5½ million in 1954 alone. Among miners alone, about 6½ per cent were able to return to mining, 16 per cent found work in other industries, and 6 per cent became self-employed.

—Warren F. Draper, M. D., Executive Medical Officer, UMWA. (Coal Mining)

Safer Construction

The old adage that a skyscraper cost one life for every floor is no longer true, because structural steel erection is becoming a safer occupation all the time.

Improving conditions may be attributed to all elements of the construction industry. Equipment manufacturers are paying more attention to safety in the manufacturing of cranes, hoists, compressors, and other equipment. Building code revisions have also helped by improving conditions during construction. Unions are including safety lessons in apprentice training courses.

At one time structural steel erection was classed among the most hazardous occupations. Ten years ago the industry had ratings of 82.7 in accident frequency and 17.4 in severity. Today, these rates have dropped to 25.9 and 4.9 respectively.

—William G. Rapp, Assistant to General Manager of Steel Erection, Bethlehem Steel Co. (Construction)

Security, Too

The United States is only half safe unless we have a planned security program every bit as good as our safety programs.

The safety of a plant does not mean merely care exercised in accident prevention. It includes as well the protection of top secret or confidential material and work or equipment of all kinds.

Our greatest danger is the threat to our freedom and the American way of life. Industrial safety organizations should include in their plans protection against sabotage.

Plant security and safety go hand in hand. Ordinary caution which stems from the instinct of self-preservation can keep us only half safe.

—Frank V. Martinek, Assistant Vice-President, Standard Oil Co. (Ind.) and Chairman, Plant Protection Committee, Chicago Civil Defense Corps. (Petroleum)

What Color Does

Color not only can raise your spirits, it can lower the accident rate as well.

Color dynamics may be defined as "the correct use of the energy in color." Principles of color dynamics have long been used in decorating hospital rooms, hotels, and offices to stimulate desired reactions on patients, patrons, and employees. The science is now spreading into industrial applications, too, with good results.

In one large steel plant color dynamics was applied gradually in repainting the buildings and equipment. Over a three-year period, records revealed the following improvements:

1. Number of disabling injuries was reduced by 38 per cent.

2. Improved employee morale resulted in a reduction of absenteeism from approximately 5 per cent to less than 2 per cent. Labor turnover was reduced from 4.5 per cent to 0.4 per cent.

—To page 105

New Iron Age Steel Toe Insulated Safety Boots

Warm in winter, cool in summer
dry and safe always!

Looking for a sturdy leather 8" boot with a steel toe? Want one that's insulated against cold and heat? Need one that sheds water like a duck's back; resists oils, acids, alkalis; that's softly supple, yet wears like iron? There's just one that meets these specifications. It's the new *Iron Age Insulated Safety Boot.*

The big feature is the upper leather. It's Parka Brown Sylflex, a patented tannage using Dow silicones. This process keeps moisture out, permits the leather to breathe; allows the fibres to remain forever soft and flexible.

Be among the first to start earning the benefits your people can gain by wearing this *exclusive* Iron Age value. Be prepared for bad weather ahead. Get your stock order in today.

OTHER FEATURES

- Waterproofed inseams and welting
- Double counter and backstay
- Dacron stitched throughout
- Seiberling Oil-Pruf sole, heel
- Full leather middle sole
- Rawhide laces

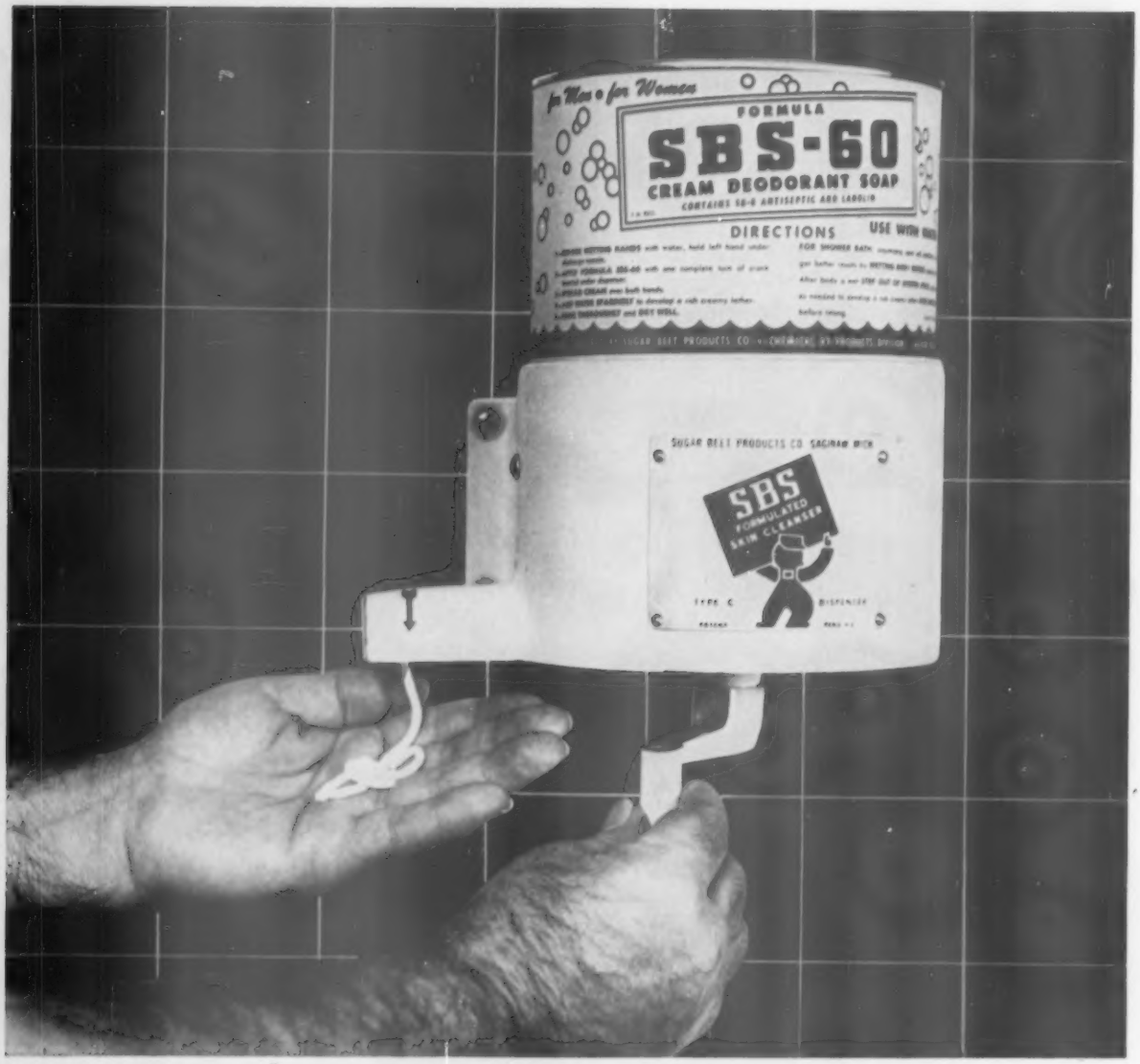
No. 677

No. 678 (not illustrated) same in regular 6" work shoe height.

Iron Age
DIVISION

H. CHILDS & CO., INC. 1205 Madison Ave. Pittsburgh 12, Pa.

SBS Research Triumph... An Entirely IMPOSSIBLE



UNLIKE ANY OTHER SOAP that is to be used with water, SBS-60 Cream Deodorant Soap is neither a liquid, bar, nor powder . . . but a white, opaque, thick-bodied cream. It is economically dispensed on the hands with no loss and is, for all practical purposes, impossible to waste! The SBS-60 Cream Deodorant Soap dispenser need not be placed over the washbowl or in the shower like liquid or powdered soap equipment. In fact, it can be placed anywhere in the washroom area. SBS-60 Cream Deodorant Soap is dispensed on the hands before wetting and may be spread on the skin enroute to the washing facility without loss! One SBS-60 dispenser can serve many users for both hand washing, or showers, with absolute assurance of no soap waste . . . no soap spillage . . . no costly dispenser maintenance. Carefully cost-checked, SBS-60 Cream Deodorant Soap has achieved savings in soap costs of up to 50% in typical plants across the country.

New Type Of Soap That's Almost

TO WASTE!

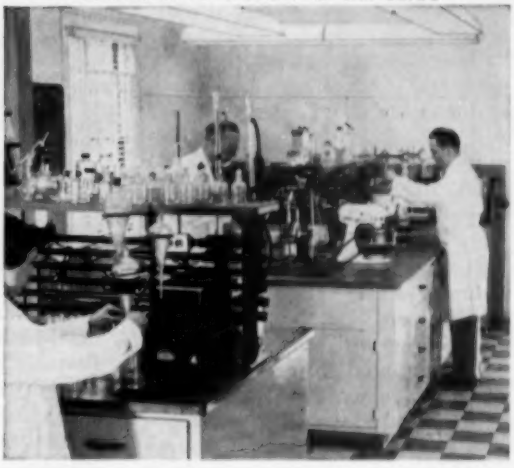
SBS-60

CREAM DEODORANT SOAP

SUCCESSOR TO LIQUID AND BAR SOAPS

Presenting the first major soap development in a quarter of a century . . . savings on soap costs up to 50% assured

The announcement of SBS-60 Cream Deodorant Soap once and for all solves the problem of costly waste in the use of liquid and bar soaps. Today for the first time, the availability of SBS-60 Cream Deodorant Soap brings costly soap waste to an end for your company. Three years of extensive laboratory testing and country-wide plant tests have proved the value of SBS-60. Savings up to 50% in soap costs are matters of record . . . an end to costly soap dispensing problems is assured . . . improvement in employee morale is another handsome dividend when SBS-60 is used. Special announcement literature has been prepared to answer all your questions . . . this information is valuable to you and your company—send for it now.



MODERN LABORATORY EQUIPMENT in the hands of skilled chemists produced this first major soap development in decades . . . SBS-60 Cream Deodorant Soap. Their assignment was to come up with a product that would eliminate the wastes of present day liquid and bar soaps . . . their success is now a matter of recorded fact.

SEND FOR YOUR COPY OF THIS SPECIAL ANNOUNCEMENT LITERATURE

SUGAR BEET PRODUCTS COMPANY, 302 WALLER ST., SAGINAW 49, MICH.

Gentlemen: Rush me the special announcement literature on the new SBS-60 Cream Deodorant Soap.

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Chemical By-Products Division
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Canadian Subsidiary
Chemical By-Products, Ltd.
8 Ripley Ave., Toronto 3, Canada

Wire from WASHINGTON

By HARRY N. ROSENFIELD
Washington Counsel, National Safety Council

SAFETY CONSIDERATIONS continue to loom large in Washington, both as a basis for executive action by the agencies of the Federal Government, and as the occasion for judicial rulings of one sort or another.

Aviation. The Civil Aeronautics Administrator, Frederick B. Lee, has stated in several public addresses that the CAA has taken "a new look at our entire safety program." A committee of division chiefs from CAA's Office of Aviation Safety prepared a report, on which comments have been invited from the industry. In general, the orientation of the plan is to assign more responsibility for safety to the aviation industry itself. (See Wire from Washington, October 1955) In connection with the CAA's recently-outlined 10-year program of improvements in air traffic control and navigation, assurance was given that "priority of course will continue to go to projects where safety is involved."

The Civil Aeronautics Board recodified its Air Traffic Rules by revising that entire portion of the Civil Air Regulations to include all current amendments.

Highways. The Interstate Commerce Commission ruled that the transportation of military explosives over public highways involved such safety factors that it was justified in adopting a policy of granting only temporary certificates authorizing interstate motor transportation for such explosives. Many civic organizations and local governmental agencies objected to the use of highways for such purpose.

In rejecting these protests, the ICC gave public assurance that it intended to be very thorough in the enforcement of its safety regulations and that the temporary five-year certificate would enable it to maintain a close check on such operations.

In the course of its ruling, the ICC said:

> It is common knowledge that the present highway system is inadequate in some respects for modern day traffic, with a consequent increase in the number of highway accidents... Some of those opposing the application base their opposition on their belief that motor transportation of these commodities would add greatly to highway problems and accidents. There is no convincing evidence that this would be true. (Riss & Co., Inc., MC-200)

The Federal Communications Commission postponed, for a second time, its revision of rules to authorize antenna and tower heights up to 1,250 feet in the northeastern section of the United States. A working group submitted recommendations to the Joint Industry-Government Tall Structures Committee (which had been established by the Air Coordinating Committee), that (1) applicants for antennas over 500 feet be required to justify why they cannot locate on existing structures or in other similar locations, and (2) FCC be given legislative authority over lighting and marking of all towers. This study of tall towers was initiated after the military services formally requested a ban on all towers over 1,000 feet, as air hazards.

Industry. The Atomic Energy Commission indicated that in connection with the licensing of private industry for the use of atomic energy, only those will be licensed who prepare safe designs and operational procedures and who are competent and willing to follow safe practices in operations. Inspections would be made to assure that licensees meet such requirements. The AEC warned that "privately owned facilities must be designed and operated for safety as well as for economy."

In a proceeding involving an alleged violation of the Walsh-Healey Public Contracts Act in connection with hazardous and dangerous operation of a coal mine, a hearing examiner of the U. S. Department of Labor ruled that it was no defense that other mines in the same area were also unsafe.

Home Safety. The Food and Drug Administration announced that the mixing of poisoned seed grain into shipments of grain for food use continues to be a problem. According to FDA, such illegal action generally happens when farmers attempt to dispose of unused seed grain by mixing it with new grain crop. The grain and milling industries are cooperating with the FDA in programs to detect adulterated lots and to acquaint farmers with the dangers of selling treated seed wheat for human or animal food.

The Food and Drug Administration also amended its regulations concerning the tests and methods of assay and certification of penicillin-containing drugs. These amendments were drawn in collaboration with interested members of the affected industry.

Federal Government. The United States Department of Labor announced that injuries to employees of the world's largest employer, the United States Government, hit an all-time low. Civilian employees of the United States Government suffered 7.7 disabling injuries per million man-

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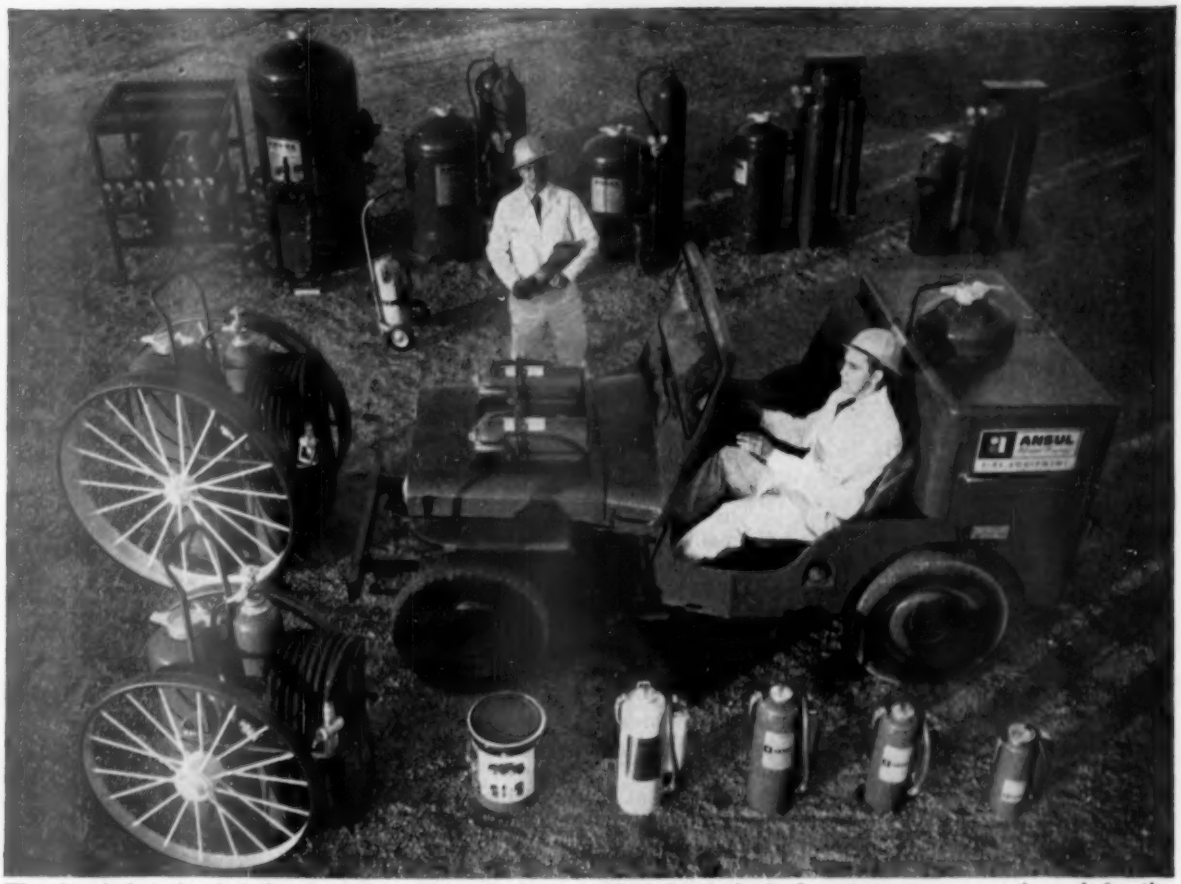

The Ansul dry chemical fire equipment pictured above includes portable hand units, wheeled and stationary units and a jeep installation. Ansul also manufactures automatic dry chemical piped systems, custom engineered for the hazard. Ansul equipment is listed and approved by Underwriters' and Factory Mutual Laboratories.

Only Ansul offers a Five Year Equipment Warranty

Your assurance of fast, dependable fire protection

For you, the buyer of fire equipment, Ansul's important 5 year warranty means many extra years of fast, dependable protection. It also means freedom from costly maintenance checks and repairs.

Special design and construction features make this warranty possible. Ansul's *weather-tight* construction keeps out moisture, resists corrosion. *Patented nozzles* deliver the right kind of stream for your hazard. A *sealed pressure cartridge* puts Ansul's "Plus Fifty" dry chemical to work immediately—no delay or lag. Finally, *rugged construction* makes it possible for Ansul equipment to give peak performance under the toughest operating conditions.

Call the Ansul Man!

Get in touch with your local Ansul man through the "yellow pages" or write ANSUL CHEMICAL COMPANY, Fire Equipment Division, Dept. F-33, Marinette, Wisconsin. *Write Ansul for your copy of new Fire Equipment Catalog.*

ANSUL

WHAT'S COOKIN' in the FIELD

- ACTIVITIES
- PROGRAMS
- EVENTS

BY
FIELD SERVICE DEPARTMENT

Dade County Council Organized

Jacob I. Jackson, formerly assistant director of Traffic Safety, State of Indiana, has been named executive director of the recently organized Dade County, Fla., Citizens Safety Council in Miami.

Fostered by the Miami Chamber of Commerce, the new organization will give primary attention to the growing traffic problem in the populous resort area of southern Florida.

Mr. Jackson, whose home has been Frankfort, Ind., attended Purdue University and during World War II was a captain with a bomber group in Europe. Following the war, he delivered planes for an export company and for three years was employed by an Indian maharaja as personal pilot and air fleet director.

He served with the Indiana State Police for four years before his appointment last May as assistant director of traffic safety for the State of Indiana.

N. J. Launches Fund Drive

The New Jersey State Safety Council has launched a $440,000 fund-raising campaign for its program during the next three years to promote safety in the home, schools, streets and highways, and industry.

George F. Smith, Johnson & Johnson's president, has been appointed by New Jersey's Governor Robert F. Meyner to head this triennial fund-raising campaign. He will have behind him an impressive roster of great American corporations, virtually all major industries, insurance companies, financial and commercial organizations operating in New Jersey. The heads of nearly 700 companies play an active financial and personal role in the safety council.

The council is financed solely by industry and business. In 1953 the state's fatal accident rate was the nation's lowest; in 1954 it was second lowest.

TV School Bus Operators' Institute

For a number of years the Texas Education Agency and Texas Department of Public Safety have assisted local officials and citizens in conducting School Bus Operators' Institutes, with emphasis on safety. The usual pattern was to bring the bus operators to a central assembly point. This year in Abilene, Texas, the Institute was taken instead, via TV, to the bus operators.

The Institute consisted of a two-hour morning broadcast, outside regular broadcasting hours, over the facilities of KRBC-TV at 10 a.m. on August 26. The idea was developed by John Kelly, director of public relations, KRBC-TV; P. E. Shotwell, health, safety, and physical education coordinator, Abilene Public Schools; Chairman Bill Gamblin and Vice-chairman J. D. Perry of the Chamber of Commerce Safety Committee; and Ross Kemp, district safety officer, Texas Highway Patrol.

Letters were sent to all school system superintendents in the area well in advance of the broadcast explaining the project and asking the superintendents to express themselves on the matter. Of 50 superintendents contacted, 42 responded, all favorably, promising to cooperate by assembling bus operators, maintenance men, and in some cases teachers and students, at centrally-located TV receivers in their respective districts.

The broadcast was estimated

When the International Association of Fire Chiefs convened in Omaha in September, the Omaha Safety Council manned this booth decorated with posters made by the city's 4,500 grade school fire patrol boys and girls.

to cover about 500 school bus drivers and mechanics in the area by prearrangement. In addition, it created considerable public notice and response by the general public who tuned it in accidentally—the broadcast was open circuit, but staged at a time when the station normally would not be on the air.

Woman Heads Local ASSE

The first woman to be chosen as head of a chapter of the American Society of Safety Engineers is Mrs. George "Sally" Balasko. She was installed recently as chairman of the Sacramento Valley Chapter at a ceremony in the El Rancho Hotel, Sacramento, Calif.

Mrs. Balasko has the safety responsibility for four installations of the U. S. Army's Sharpe General Depot, where she is safety director and the only woman who holds this title in Federal Government installations.

For the past several years she

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WE CAN SUPPLY YOU WITH

WELDTAN LEATHER WORK GLOVES

They're tough, comfortable and long lasting

Your order will have prompt attention

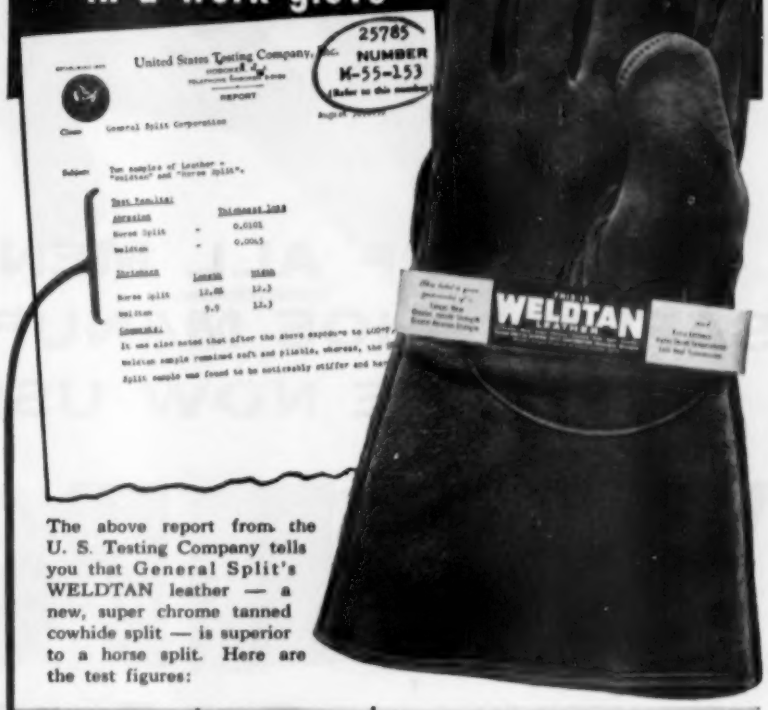
Manufacturers and distributors of a complete line of safety clothing and equipment.

Write Dept. NS-11 for information regarding your needs.

V. E. KENNEDY–INGALLS CO.

3735 NORTH 35TH STREET
MILWAUKEE 16, WISCONSIN

WELDTAN* Leather provides performance never before available in a work glove



The above report from the U. S. Testing Company tells you that General Split's WELDTAN leather — a new, super chrome tanned cowhide split — is superior to a horse split. Here are the test figures:

	Horse Split	WELDTAN
ABRASION TEST Thickness Loss	0.0101—average	0.0045—average (2½ times less abrasion loss for Weldtan)
TEMPERATURE TEST Shrinkage Loss	12.8%	9.9%—(22.6% less shrinkage for Weldtan)

COMMENTS: It was also noted that after the above exposure to 400° F, the Weldtan sample remained soft and pliable, whereas, the Horse Split sample was found to be noticeably stiffer and harder.

These performance extras mean not only dollar savings and less frequent glove replacement, but increased comfort and softness mean they'll be better liked by your men. So, specify WELDTAN on your next order to your sources of supply. And for your protection against imitators in appearance — for many work gloves are now colored green — the identifying green and white band, illustrated here, is attached to every pair of genuine WELDTAN gloves.

*WELDTAN leather is tanned only by

GENERAL SPLIT CORPORATION FIVE STAR QUALITY

World's largest producer of glove leather splits

730 West Virginia Street Milwaukee, Wisconsin

Over 74%

OF ALL MEN'S SAFETY SHOE MANUFACTURERS ARE NOW USING

WING STEEL

Just a scant few years ago WINGUARDS were an exciting new venture in steel safety box toe design . . . an answer, we believed, to the safety engineer's long felt need. Today, over 74% of *all* men's safety shoe manufacturers have gone to considerable expense to bring you WINGUARDS, the latest development in steel safety toes. In performance, WINGUARDS' design and construction combined have proved that they can take *plenty* of rough punishment without failure. Leading safety engineers everywhere have learned to rely on WINGUARDS' rugged strength to safeguard their workers' toes.

From the original old type straight back edge Munson toe . . . carefully hammered out in a blacksmith shop . . . through a range of 19 different styles for work, semi-work,

Safety Box Toe

WORLD'S LARGEST MANUFACTURERS OF STEEL SAFETY TOES

actual photograph of
modified WINGUARD toe

UARD TOES

dress, semi-dress, rubber and women's footwear, Safety Box Toe Company has been constantly searching for and finding new ways to make tomorrow's safety toes better than today's. It has indeed been an amazing stride from the hammered out Munson to the present day precision-built safety toe of fine austempered steel.

WINGUARDS, of course, are regarded as our most significant achievement in safety box toes. Within this year, at least 4 million pairs of WINGUARDS will have done protective duty in the shoes of American workers. YOU have made this remarkable success story possible, Mr. Safety Engineer, by your increasing preference for WINGUARDS over the past few years.

Company

STATLER BUILDING · BOSTON, MASS.

Radioactive Fallout

By DR. WILLARD F. LIBBY

THE radioactivity which falls out of the atmosphere after the explosion of a nuclear weapon is called radioactive fallout. The conditions of fallout are determined largely by the amount and type of material vaporized into the fireball of the bomb.

A bomb fired in the air contributes such a small amount of matter to the cloud that the particles are tiny and slow in settling. The result is that most of the activities are expended in the air. The area over which the fallout occurs extends to the ends of the earth in small though detectable amounts.

A bomb fired on the surface of the earth, however, may have its radioactivity reprecipitated within relatively short distances, while bombs fired beneath the surface may place essentially no fallout radioactivity in the atmosphere. So, the question of the area of contamination cannot be answered categorically without specifying the degree of contact of the fireball with the surface of the earth, and probably also with the characteristics of this surface.

Firing on water should create very different precipitation conditions. It also seems likely that firing over various kinds of soil should affect to a great degree the rate and extent of contamination by fallout.

In the weapon test operation, great care is taken to insure that no danger results from fallout. Criteria are used for protective measures. However, it is from test operations that we have learned what we know about civilian defense.

There is a difficult and largely unexplored aspect which I should like to discuss: How long will an area be denied to normal occupation after it has been contaminated by fallout particles?

Practically the only way to observe fallout is by instruments, the precipitate being so fine that it is difficult to see. It is clear, therefore, that the Federal Civil Defense Administration, the states and the communities all have a twofold task—to furnish the instruments and to educate people in their use and in the principles of radioactivity. The Atomic Energy Commission is anxious to assist.

Uranium Prospectors

The nature of radioactivity and its physical manifestations are gradually becoming general knowledge. Widespread interest in uranium prospecting has induced many people to learn about them firsthand. Their obvious importance in the peaceful applications of atomic energy is requiring that another considerable segment of the population learn these fundamentals. We should encourage elementary instruction in radioactivity in high schools.

The instrument problem appears to be moving toward practical solution. A variety of instruments exist which, if manufactured in adequate volume, would be reasonably inexpensive and the possibilities of improvement seem to be good.

The main problem is supplying an instrument for external gamma radiation dosage measurements. However, there are two other instrument problems — the measurement of beta ray dosage rates on the skin, and some type of battery-powered radio so communication will be possible under all conditions. The beta radiation skin dose measurement is important since this local dose on the surface of the body can, under certain conditions, be many times the gamma dose.

When water is present in the fallout material, factors of selective absorption can occur which deposit some of the fallout on the skin. Perhaps we will see an instrument developed which combines these jobs with the uranium prospector's Geiger counter so that in one package we will have a battery-powered radio receiver and a Geiger counter which, with appropriate sleeve shields to be put around the counter, can be used to measure external gamma ray dosage rates, surface beta dosage rates, and on its most sensitive scale to test for uranium ore deposits. Such an all-purpose instrument would, if sufficiently inexpensive, fill the need.

Persistence of radioactive fallout in an area depends on two features: The natural rate of decay of the radioactivity and the physical location of the material.

The radioactivity from fission is a composite of about 90 different radioactive species varying in radioactive lifetimes from a fraction of a second to many years. The radioactivity of the mixed fission products decreases about tenfold for every sevenfold increase in the age of the fission products. If, for example, a bomb is fired seven hours before the fallout occurs, then at 49 hours the average intensity of radiation would be 10 per cent of that observed immediately after the fallout, and at two weeks it would be reduced to about one per cent simply by radioactive decay.

It is plain from this that one of the effective methods of protection

---

DR. WILLARD F. LIBBY is Commissioner, United States Atomic Energy Commission. This article has been condensed from an address before the Fourth Annual Conference of the U. S. Civil Defense Council, Boston, September 29, 1955.

Moccasin-toe Jaguar (S-4375). Racy, dress-weight blucher, cut smart and low. In Brandy Glove Grain. Leather-lined steel toe box.

Scotch Grain Oxford (S-4208). Ever popular straight-tip design. In Cedar brown. Oak bend leather sole. Leather lined steel toe box.

Who'd ever guess these handsome grains by Thom McAn are safety shoes?

YOUR MEN could wear them on a date! But they'll *work* safely in them, too. Under the handsome grain of these new Thom McAns is the rugged, steel-toed strength of the huskiest safety shoe ever.

These Thom McAn grains look and feel like the latest dress-shoe models, and because of their street-weight construction they're guaranteed to take a lot of strain out of standing work. They're as right for *after* work as they are on the job.

Thom McAn has the shoes your men are going to want in rugged Scotch Grain, the new Glove Grain and other specially tanned, suppler-than-ever grain leathers. Our styling is up to the minute for 1956—and for sheer hard wear they're everything your men have come to expect from Thom McAn.

Top all this off with Thom McAn's special combination of fine workmanship, top quality, long-wearing leather and famous money-saving prices. You'll begin to see why Thom McAn's so good it's the best-selling shoe in *all* America.

SOLD TWO WAYS: 1. At Thom McAn Stores. **2.** Direct to your plant. Send today for details of our money-saving plant-sale plan and Thom McAn's 4-way employee purchase plan—plus descriptions of the Thom McAn Safety Shoe line. Write: Thom McAn Safety Division, 25 W. 43rd St., N. Y. 36, N. Y.

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Thom McAn
SAFETY SHOES
A Division of the Melville Shoe Corporation

against fallout in its early stages is to sit out its decay in a shelter. A house with possibly some decontamination of the roof may be sufficient in certain circumstances but it is quite certain that an underground shelter, and it is possible that many cellars, would afford adequate protection.

The principal shielding effects of the ordinary building will be, first, protection against exposure of the skin to the beta radiation. (Beta radiation is a hazard only to the skin because it is not penetrating, and, in general, is absorbed in a small fraction of an inch of skin, flesh, water, wood, or other matter.) For the average fallout beta radiation 25/1000 inch of these materials will reduce the intensity by 50 per cent.

Second, a building will keep the fallout at a distance so that the gamma radiation intensity will be reduced by this factor alone. In addition, the wood and concrete and intervening air in the rooms will absorb the gamma radiation partially, four in. of concrete, nine in. of wood, and 200 yards of air all will reduce the intensity of the average fallout gamma radiation by about 50 per cent. Cellars will insure both the maximum distance and the maximum intervening thickness of protective matter.

The fallout probably will lie mainly on the roof and the ground surrounding the building. Of course, the adequacy of either the house or cellar will depend on the fallout intensity. Under the most intense conditions the protection thus afforded would be inadequate, but in most cases it could be moderately satisfactory.

One of the first tasks is to tell people how to assess their own premises in this respect. Underground shelters with several feet of earth cover will afford essentially complete protection. When caught in the open, an individual might shield himself by digging a foxhole and piling the dirt around the opening.

However, this type of protection is most effective in the first day or so only and the rate of decrease due to radioactive decay is much less thereafter—12 days additional aging being required to produce a further tenfold reduction over that which occurs in the first two days. Therefore, the total dose which can be accumulated in a contaminated area, if the fallout does not move about and is not absorbed into the soil or waters or otherwise shielded, decreases slowly.

The maximum dose under the conditions described would depend on the age of the fallout in terms of the time elapsed since the bomb explosion at the time one decided to forego the shelter.

Since the radioactivities are deposited as a very fine grained dust, more important than the rate of disappearance by radioactive decay may be the rate at which the dust is blown about or buried or dissolved in water and carried into the soil, or otherwise physically transported.

We know by the study of radioactive strontium—an isotope of 27-year half-life—that the rainwater carrying Strontium-90 (Sr^{90}) is purified in the top few inches of almost any soil, and that the run-off water is purged of this radioactivity by the cleansing action of the soil itself. If similar effects obtain for the other fission products, we should expect that river water might be purified by the action of the soil.

We should hope that fallout occurring in the absence of rain or snow will be removable by the use of water from fire hoses, and that decontamination of buildings by hosing down the roofs might be quite effective. The radioactivity might thus be carried into the sewer system and covered by the necessary several feet of earth required for effective shielding of even the largest amounts of radioactivity. Dust falling on the city streets could be removed by hosing, although careful sweeping to prevent dusting and inhalation would be required.

In open country the problem is different. Rain will move the contamination down into the soil and will thus reduce the hazard due to external radiation appreciably, since every four to six inches of soil will reduce by 50 per cent the gamma intensity. Movement of the fallout by winds is more difficult to predict. In the absence of real dust storm effects, the effects should be to reduce the intensity appreciably without creating dangerous concentrations. The effects of farming operations would be to incorporate the fallout more deeply into the soil and thus to further reduce the external hazard. Deep plowing probably would be best of all protective procedures.

Though the external radiation hazard due to fallout is undoubtedly most important, an internal hazard does exist in one of the fallout radioactivities—radioactive strontium which can be taken up from the soil into farm products.

From studies of the minute amounts produced by the tests, we learn that the fraction of the radioactive strontium finding its way into the crops and grass is determined mainly by the amount of diluting calcium in the soil. Ordinary soil has about one or two tons of available calcium per acre in the top four inches, though there is wide variation. Calcium is so similar to strontium chemically that the assimilation of strontium follows calcium fairly closely.

For these reasons, we can expect that for soils particularly deficient in calcium, fertilization of the soil of a contaminated area with calcium probably would reduce to a considerable extent the radioactive strontium incorporated into agricultural products.

—*To page 98*

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SMALL BUSINESSES and ASSOCIATIONS

By A. M. BALTZER and ROBERT D. CURRIE

Small Business Program Staff
National Safety Council

Gray Iron Foundries Survey

The Gray Iron Founders' Society has announced the formation of a safety committee to set up a safety program geared to the problems of the gray iron industry. The best part of this news is the way they're going about it.

The committee's first step was to develop a safety questionnaire to survey the industry to gather the facts. Upon completion of this survey, they will have a good picture of their members'

accident experience.

safety, health, and first aid facilities.

data regarding present safety activities, safety and hygiene committees, etc.

workmen's compensation and occupational diseases insurance status regarding classification, rates, premiums, experience rating, etc.

most effective approaches to reduce accidents.

This survey is perhaps the most important step in initiating an association safety program. By first getting the facts, an association is in the best position to establish a sound and practical safety program for their members with the least effort.

We helped this group, as well as many others, develop a survey questionnaire to start them off on a long-range safety program. And we'd be glad to help any other association do the same.

Pennsylvania Scores Again

Bob Scott, safety director of the Manufacturers' Association of Montgomery County (Pa.) and chairman of the Pennsylvania Manufacturers' Association safety committee, has issued a hard-hitting bulletin to Pennsylvania Employer Associations. He points out that influential labor and management speakers would give "straight from the shoulder" talks and answer many safety problems.

Bob also transmitted reprints of a fine talk given August 25 by John Seeton of the Pennsylvania Manufacturers' Association before the National Industrial Council. Mr. Seeton reported on outstanding safety activities of a number of state associations and outlines a step-by-step state association program that gets results.

With such enthusiasm it is easy to see why the Keystone State continues to enjoy its reputation for outstanding safety work.

You Bet They're Legal!

Malcolm I. Ruddock, general counsel to five national associations, in an article in the July 1955 *Journal of the ATAE* made a point which sounds good to us. Discussing association activities which are "usually legal," he lists:

Accident Prevention Programs

Health Programs

Product Publicity

Research

Cooperation with Government Agencies.

This excellent article, quite naturally, devotes considerable space to illegal or "borderline" activities, but it is reassuring to see "safety and health" occupying the top two of the five activities that are relatively "safe." Frankly, the thought never occurred to us that anyone might construe them as anything but "safe!"

Some associations find, after getting into health and safety work for other reasons, that these "service" activities enhance the association's membership service in the field of employee and public relations. At the National Institute last June more than one speaker stressed the value of "service activities." No one can say that activities designed to protect the worker, his family and the public are anything but on the highest plane.

Mr. Ruddock's reassurance comes as no surprise to us; we hope it gives association executives and committees an idea.

The one-week course in Bakery Equipment Maintenance conducted September 12-17 by the American Institute of Baking included two hours of accident prevention. The AIB is another association that recognizes the value of preventing accidents and uses this excellent method to bring safety to the bakeries. Shown are 35 maintenance engineers and instructors, Jack Kelly, service representative, Liberty Mutual Insurance Company (seated on table at left), and Al Baltzer, director, Small Business Program, National Safety Council (seated on table at right.)

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increases productive efficiency in famous aircraft plant

Properly engineered color plan throughout plants of The Martin Company provides better working conditions that increase quality and quantity of output and improve spirit and enthusiasm of workers.

BETTER seeing conditions increase productive efficiency. More pleasing work areas improve the spirits and enthusiasm of supervisory and hourly personnel alike! These are the benefits resulting from the use of Pittsburgh COLOR DYNAMICS in The Martin Company, Baltimore, Maryland, world-famous pioneer of the aviation industry.

These huge factories, with five million square feet of floor space, produce many types of military aircraft as well as tactical missiles, rockets and numerous other items for the armed services.

The new color plan for these plants was carefully chosen according to the principles of COLOR DYNAMICS.

Colors were selected for interior walls and ceilings to raise the light level in all working areas. Stationary as well as moving parts of machines were given colors that permit the operator to focus his attention on his task with less eye strain. Safety colors on motorized equipment and traffic lanes have reduced danger of time-loss accidents.

The Martin Company's satisfaction with COLOR DYNAMICS is best summarized by G. T. Willey, Vice-President in charge of manufacturing:

"We believe we have successfully attained our objectives with COLOR DYNAMICS. Both quality and quantity of our output have increased. The improved surroundings have raised morale among our working force. The pride our employees take in their environment is reflected in their eagerness to keep work areas clean, thus simplifying housekeeping.

"The colorless and uninspiring whites and grays we had collected dirt easily. We believe our present colors will cost us less to maintain. Thus the additional benefits we derive from COLOR DYNAMICS are a highly gratifying plus value."

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"At the completion of the campaign we had over 17,000 regular savers—over 80% of all Northrop personnel buying U. S. Savings Bonds regularly on the Payroll Savings Plan. Every employer should stage a similar campaign for the benefit of his personnel and the economic welfare of our Country."

WHITLEY COLLINS, ***President***
Northrop Aircraft Company

If less than 60% of your personnel are Payroll Savers, do something about it. A phone call, telegram or letter to Savings Bonds Division, U. S. Treasury Department, Washington, D. C., will bring prompt assistance from your State Director. He will help you install, or revitalize a Payroll Savings Plan, through a simple, person-to-person canvass which your personnel will be glad to conduct. That's all you have to do—your men and women will do the rest.

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Voice of the Reader

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Permission Granted

BUFFALO, N. Y.—May we have your permission to use "The Accident Barometer," prepared by the Council's Statistics and Research Division from NATIONAL SAFETY NEWS in our plant publication?

E. J. TURTON
Safety Supervisor, Motor and Control Division, Westinghouse Electric Corp.

* * *

Psychology

WELLINGTON, N. Z.—Thank you for your letter of 20th June and the enclosed copy of Dr. Rosenstein's book, "Psychology of the Supervisor." I have read it with interest and have sent it to the Safety Officer at our Rotorua Sawmill who was particularly anxious to read Dr. Rosenstein's work.

A. R. ENTRICAN
Director of Forestry
New Zealand Forest Service

"Now who can tell me what Howard is doing wrong?"

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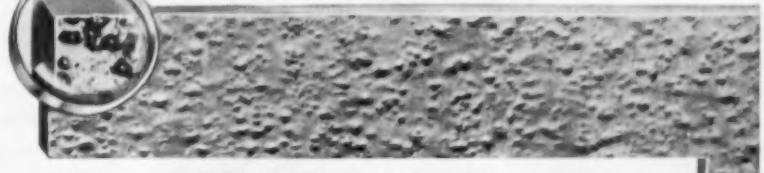

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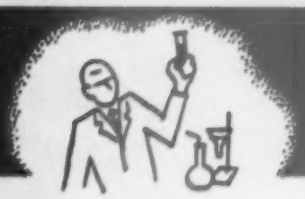

Abstracts of current literature on Industrial Hygiene, Medicine, and Nursing

BY F. A. VAN ATTA
Industrial Department, NSC

Permissible Limits for Air Pollution

Pitfalls in Using Maximum Allowable Concentrations in Air Pollution by H. H. Schenk. *The American Industrial Hygiene Association Quarterly*, 16:320-234 (September 1955).

THERE IS MORE concrete information about economic losses and various nuisances from air pollution than there is about effects upon health and they consequently provide a more concrete reason for control. However, emphasis is usually placed on health effects in attempting to establish control of air pollution because of the greater appeal to the public.

There can be no doubt that community air pollution does have effects upon health and that there have been a number of examples both of the acute effects of the release of single polluting agents and relatively limited areas and of the acute effects of fogs and smogs where the specific damaging component is not known. There is only speculation about the chronic effects of air pollution on community healths.

It is natural in attempting to assess the effects of air pollution on health to turn to the information which is available from occupational hygiene studies on the toxicity and pathology of the same materials under in-plant conditions.

Many materials have been studied for their effects upon people working with them, and maximum acceptable concentrations have been set for them under the conditions in which they are used in industry. In setting up such maximum acceptable concentrations it is assumed, tacitly or implicitly, that the exposed population will be a rather selected group as to age and physical state, and contrasted to the population exposed to community air pollution which necessarily runs from the new-born to the oldest and from the weakest to the strongest.

It is also assumed that exposures will be for approximately eight hours per day and five days per week and that the exposed population will be under effective medical control and that the exposure levels will be controlled within relatively narrow limits.

It is clear from a comparison of the factors involved and the evaluation and control of industrial exposures with the factors relating to exposure to community air pollution that the two types are entirely different. The limitations of the acceptable levels of exposure used in industry and the checks and balances required for their effective use show plainly that those levels cannot be applied to the field of air pollution where the factors are both unknown and extremely variable and cannot be controlled.

Acute effects of air pollution on health have been observed at levels much lower than those found to be safe in industry. This may encourage attempts to use fractions of the industrial threshhold limits on the basis that resistance is less and exposure is longer. However, if the limits themselves are not applicable owing to differences in the basic principles involved in setting them then any fraction of the limits are equally inapplicable. Such a procedure is without logical basis and is meaningless.

The fact that the limits themselves are not applicable should not be interpreted as meaning that the toxicological information and the experience in control and investigation accumulated in industrial hygiene and industrial medicine should not be applied to community air pollution. The methods and the basic information are both completely applicable and should be of great help in the evaluation of the effects of chronic exposure to air pollutants.

How Toxic Is Chlordane?

The Present Status of Chlordane, by the Council on Pharmacy and Chemistry of the American Medical Association. *The Journal of the American Medical Association* 158:1364-1367 (August 13, 1955).

CHLORDANE is the common name generally used to indicate the chemical compound 1, 2, 4, 5, 6, 7, 8, 8-octachloro- 4, 7-methane-3A, 4, 7, 7A-tetrahydroindane. The commercially manufactured product contains 60 to 75 per cent of chlordane and 24 to 40 per cent of related compounds.

The volatility and consequently the residual effects of chlordane are intermediate between those of DDT and those of gamma benzene hexachloride. Chlordane acts as a contact poison, a stomach poison, a respiratory poison, or fumigant.

Because of the residual effect chlordane is not acceptable for use on food crops during periods of growth when edible parts are present or on forage, hay, or silage crops intended as feed for

—*To page 108*

Modernize with Schrader shear controls

Just a light touch of the toe is all it takes to operate your shear after you equip it with a Schrader Pneumatic Control.

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New exhaust purifier shown here installed on counterweight of fork lift truck permits gasoline-powered vehicles operated on leaded fuel to perform with greater safety in enclosed plant areas. Unit is connected by flexible coupling to engine exhaust manifold, is designed for convenient horizontal mounting.

Catalytic Exhaust Purifier For Leaded Gas

THE engine exhaust problem of industrial trucks operating on leaded gasoline has a catalytic solution, it has been announced by Oxy-Catalyst, Inc., Wayne, Pa.

The new device, called the Oxy-Muffler, is the first catalyst exhaust purifier that can be used on leaded gasoline—by far the most common type of fuel for in-plant trucks.

Another catalytic muffler developed five years ago by Oxy-Catalyst, has been used widely for exhaust control of plant vehicles fueled with unleaded gasoline or liquid propane gas.

The new Oxy-Muffler — actually a forerunner to a successful automobile exhaust purifier — eliminates by catalytic burning as much as 90 per cent or more of the carbon monoxide and most of the aldehyde and hydrocarbon fumes in engine exhausts.

Since it can be used with leaded gasoline—as well as with unleaded fuels—the device provides a new degree of freedom for industrial gasoline-powered vehicles of all kinds.

Fork lift trucks, power sweepers, and other in-plant vehicles can be operated with greater safety in enclosed plant areas.

Even in poorly ventilated areas, the exhaust clean-up of the new muffler is sufficient to eliminate the annoyance factor and, in many cases, the danger to workers of noxious engine fumes.

The Oxy-Muffler—designed as a direct replacement for a truck's acoustical muffler—can be quickly installed on any standard vehicle without major changes.

The search for a catalytic muffler that would resist the lead compounds found in almost all gasolines has been the subject of a seven-year search and development program.

To produce an efficient catalytic purifier that would overcome the problem of deactivation of the catalyst by the lead in ordinary gasoline, Oxy-Catalyst developed a catalyst and muffler structure entirely different from those in its OCM Catalytic Exhaust.

Inside the Oxy-Muffler, in a horizontal row, are a number of chambers, each containing beds of tiny catalyst pellets. Fume-laden exhaust gases enter the Oxy-Muffler through an inlet section. A venturi in the inlet sucks in through an air filter enough air to support combustion of the exhaust contaminants.

The hot gases flow down through the pellet beds where they come in contact with the catalytic agent. They are burned by catalytic chemical action to a safe, odorless exhaust of carbon dioxide and water vapor.

Basic principle of the new muffler is the chemical action of the catalytic agent which permits highly efficient combustion of carbon monoxide, hydrocarbons, aldehydes and other exhaust fumes at temperatures far below their normal combustion points. Burning occurs without flame. The catalyst bed just glows.

From a cold start, the muffler provides full rated clean-up after only a brief warm-up. Operation of the engine under load or at high speed idling for three to five minutes is sufficient to bring the catalyst up to operating temperature.

Extended life tests indicate that the Oxy-Muffler will provide up to 90 per cent clean-up for at least 600 operating hours—the equivalent of about five months' fork lift truck performance in many plant operations.

Exhaust clean-up is at least as good when non-leaded gasoline or LP-gas is used as the engine fuel.

When muffler efficiency drops below the level desired by the plant operator, the catalyst pellets can quickly be removed and replaced with fresh ones.

A pyrometer indicator connected to a thermocouple in the muffler gives the operator a con-

—To page 120

It takes FORESIGHT to SAVE sight!

INSTALL SIGHT SAVER CLEANING STATIONS . . .
Keep safety glasses clean and safe.

Safety Directors in thousands of plants have found that the best way to encourage people to wear safety glasses is to make it easy to keep them clean. And the quickest and easiest way to clean and polish eyeglasses is with Sight Savers, the genuine silicone treated tissues used and preferred by millions of people.

SIGHT SAVER CLEANING STATIONS are economical to install and maintain—and they require minimum space. **Now's** the time to increase the effectiveness of your eye safety program with Sight Saver Cleaning Stations conveniently located throughout your plant. Make Sight Savers available to wipe away the best excuse a man can give for not wearing his safety glasses.

DIRTY glasses are dangerous and inefficient

CLEAN glasses reduce accidents, improve workmanship

SIGHT Savers keep glasses clean!

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Cat. No. 60 ..... (Black)
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Cat. No. 62 ..... (Safety Green)
each $2.50

Refill Packets ..... (Cat. No. 65)
each $1.45

20,000 Safety Rules

Ever sit down and read 20,000 safety rules? Sounds boring, but it proved entertaining, and educational, too! Here's the story.

By ROBERT CURRIE

NOT long ago a high school lad who works part time in a prosperous dairy store showed us a five-page mimeographed training bulletin distributed by his employer, a small businessman. Of course, we looked first for something pertaining to safety. We found it—all three lines. It cautioned the employee to "safeguard himself and the public, take no chances, and be careful." There was no further indoctrination or training.

The "safety training" was brief, but hardly adequate. Qualitatively, the rules were too general and vague to help teen-agers in their first job. Further investigation revealed several lost-time injuries in the past year.

After checking our array of cartoon booklets, picture leaflets, and similar publications we found that we didn't have a single, simple, inexpensive publication that hit the nail on the head for a situation like this, something a small company could copy or distribute as its own.

Sure, we could devise one, but why not let the men on the firing line, the foremen and supervisors, take a crack at it. There would be several advantages. It would get hundreds — maybe thousands of "old timers" to think about the *most* important safety precautions and it would enable us to "sell" these rules, not as ours, but those of the men who supervise in our various industries.

ROBERT CURRIE is a Senior Engineer, Small Business Program, National Safety Council.

Final judging session in "Ten Rules" contest finds the judges examining papers that reached the semi-finals. Members of the panel (seated, l. to r.) are E. Russell Bartley, A. M. Baltzer, Ivan F. LeGore, David Arm, and Joseph C. Stennett. Standing is Robert Currie.

Ten Rules Contest

The combination of the incidents and ideas prompted the "Ten Fundamental Rules of Safety" contest that was announced in the June and July issues of the *Industrial Supervisor* magazine. The response was tremendous. Literally, "we wuz swamped" with well over 20,000 fundamental safety rules. They came from Trinidad, Jamaica, Rio De Janeiro, Japan, Philippines, Mexico, Peru, Hawaii, and scores from Canada and Texas. Many were authored by the fairer sex.

Alert supervisors, as well as top management people, recognize the value of such activity to stimulate safety thinking—so it's not unusual to find production units, entire departments and divisions — even companies — conducting safety contests tailored to their own particular needs. Such was the case here.

American Airlines, Inc., achieved 100 per cent participation from foremen at the Tulsa Overhaul Base. They conducted a contest of their own and urged the contestants to send in their entries to the NSC contest. Their winner enjoyed an all-expense trip to the National Safety Congress.

Raybestos-Manhattan, Inc., of Passaic, N. J., also conducted a contest using the same basic rules. They gathered their entries,

TRAGEDY COMES TO LEXINGTON. This tank truck jackknifed, tipped over on its side and traveled about 100 feet in that position. Sparks showered up from beneath the truck and it blew up. The driver was killed.

Rockwood FOAM puts out tank truck fire in minutes!

Here is the true story from the pages of the Boston Globe and eye-witnesses

It was Thursday, March 17, 1955, 9:30 a.m. A tank truck was stopping at a traffic light on the Concord Turnpike in Lexington, Massachusetts. Suddenly, it jackknifed. There was a puff of smoke, then an explosion. The driver was hurled onto the roadway. His clothes were aflame and he collapsed. Onlookers said flames reached 200 feet in the air.

Minutes later, in answer to a telephone alarm, Engine 2 of the East Lexington Station was on the scene. Flames whipped by winds and fed by several thousand gallons of gasoline were sweeping across the road and scorching the surrounding trees. Black smoke billowed into the air.

Roy A. Cook, Chief Engineer, Lexington Fire Department, ordered Engine 2, which carries 500 gallons of water, to hold back the flames until Engine 1, carrying Rockwood FOAM, could be put into action. .

Soon Engine 1, equipped with a 1½" Rockwood FOAM eductor plus the new type SG-60 FOAM nozzle with adapter for straight stream and FogFOAM, was at the scene. *With this Rockwood equipment and FOAM, Engine 1 had the fire completely under control in fifteen minutes; completely extinguished in forty-five minutes.*

Does your city have this protection? With ever-increasing traffic, more filling stations and more tank trucks on the road, the frequency of gasoline fires is on the increase. When tragedy came to Lexington, headlines told a grim story. But a major catastrophe was prevented because the Lexington Fire Department was prepared with Rockwood products. Every Lexington Fire Department Truck is equipped with Rockwood FOAM.

Be prepared. Put this great fire fighter to work for you. Specify Rockwood Automatic FOAM Proportioning Systems, Rockwood FogFOAM nozzles and FOAM liquid when you order a fire truck.

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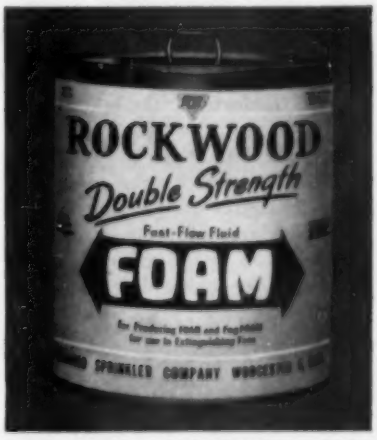
Engineers Water . . . to Cut Fire Losses

Distributors in all principal cities



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Please send me your illustrated booklet on Rockwood fire fighting products.

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Ten Basic Safety Rules

This list was compiled by the judges from the best rules submitted from all over the world in the Industrial Supervisor's "Ten Rules" contest.

1. Follow instructions; don't take chances; if you don't know, ask.
2. Correct or report unsafe conditions.
3. Help keep everything clean and orderly.
4. Use the right tools and equipment for the job; use them safely.
5. Report ALL injuries; get first aid promptly.
6. Use, adjust and repair equipment only when authorized.
7. Use prescribed protective equipment; wear safe clothing; keep them in good condition.
8. Don't horseplay; avoid distracting others.
9. When lifting, bend your knees; get help for heavy loads.
10. Comply with all safety rules and signs.

judged them, and sent them to our contest. Two of this group placed among our top 15.

Du Pont's Barksdale, Wis., Works, mimeographed a form to make it convenient for employees to submit their entries. We got a packageful of them.

Supervisors in many military establishments with large civilian employment received directives from their commanding officers urging participation. Many safety directors in large firms assisted supervisors in preparing entries; others "endorsed" the entries or commented on the interest aroused by the contest.

Every single entry contained good thoughts on preventing accidents. Some of them, however, weren't too well suited to our purpose. For example,

"The best defense against an accident is not to be there when it happens." (Seems difficult to do.)

"Do the do's and don't the don't's." (Kinda clever, but hardly specific enough.)

"When using a crane, use your cranium." (Too specific!)

"A pipe wrench shouldn't be used if teeth are dull." (Mixed meaning?)

"Don't tickle other employees." (Interesting and tempting.)

Judging

The Committee of Judges was made up of:

David L. Arm, (Chairman) Manager, Industrial Department, National Safety Council.

Joseph C. Stennett, Manager, Engineering Department, National Association of Mutual Casualty Companies.

E. Russell Bartley, Director, Industrial Relations, Illinois Manufacturers' Association.

Ivan F. LeGore, Safety Director, Portland Cement Association.

A. M. Baltzer, Director, Small Business Program, National Safety Council.

Robert Currie, Senior Engineer, Small Business Program, National Safety Council.

The Committee of Judges established certain criteria in screening the entries. It was agreed that:

1. The rules must be *rules*, not slogans, and must be for *employees*, not for foremen, supervisors, managers — as many entries were.

2. The rules should be general and appropriate for a foundry, a lumber yard, a garage, a hotel, or any large or small business.

3. Brevity counts — rules should be simple, concise, direct.

4. They should cover these important areas:

- Job instruction
- Unsafe conditions
- Good housekeeping
- Tools and equipment
- Injuries and first aid
- Unauthorized use of equipment
- Use of prescribed equipment and clothing
- Horseplay
- Lifting
- Rules and signs

After preliminary screening, each judge was assigned two areas to consider. A sixth judge was assigned to consider any rules outside the ten areas. Thus, each semi-final unidentified entry was judged by six men. The best ones were then compared one against another before final decision was made.

Oddly, not one single entry covered all the areas listed although the winners covered practically all areas. Some entrants took two or three rules to cover one area; others ignored too many of the areas without substituting any better rule.

The Winners!

The first place winner was Leland D. Anderson, office superintendent for the U. S. Gypsum Company in Grants, N. M., who is sporting a new 17-jewel Gruen wrist watch for his efforts.

Andrew Veleber, an assistant foreman for Raybestos-Manhattan, Incorporated, Passaic, N. J., ran such a close second that the judges had to review the two top entries several times. For his contribution this winner now writes with his new Parker "51" desk pen set.

Incidentally, it appears that our Committee of Judges was right on the ball in giving such recognition to this entry. Two sets of judges came to the same conclusion independently. In the contest conducted by Raybestos-Manhattan this entry was chosen their best—and so it is here.

Third place went to James A. Dicklow, Rome, Ill., a safety engineer for the Liberty Mutual Insurance Company. He's lighting his smokes with a new Ronson cigarette case and lighter.

The entries from the following 12 safety-minded men were considered very commendable by the judges and each received a brown plastic pocket secretary.

George Matwes, safety director, Bayonne Plant, American Radiator and Standard Sanitary Corp., Bayonne, N. J.

C. C. Rosenbarger, post safety director, Fort Benjamin Harrison, Indianapolis 16, Ind.

George D. Miller, foreman, American Airlines, Tulsa, Okla.

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Herbert A. Moreira, Lanikai, Hawaii.

Harold K. Ward, operating electrician, International Paper Co., Natchez, Miss.

Joseph A. Anderson, Materials Services Department, U. S. Naval Supply Center, Oakland, Calif.

David A. Lacey, ammunition inspector, U. S. Naval Ammunition Depot, Fallbrook, Calif.

E. A. Schultz, safety engineer, Minnesota Mining and Manufacturing Co., St. Paul, Minn.

R. L. Hollis, safety engineer, United States Defense Corp., St. Louis, Mo.

A. R. Carter, Kaiser Aluminum and Chemical Co., Baton Rouge, La.

Peter Vanderwande, superintendent, Raybestos-Manhattan, Inc., Passaic, N. J.

E. Peterson, maintenance department, E. I. du Pont de Nemours & Company, Barksdale, Wis.

No Losers

Although some received prizes and some didn't, we don't think there are any losers. Each person who submitted an entry thought about safety and thought about it pretty hard. They wanted the 10 best basic rules. It takes a lot of thought to eliminate the ones that are too specific, the ones that are too general, the ones that are not the *most* important.

In this process a lot of safety thoughts went through a lot of minds—to say nothing of the arguments and casual conversations with other employees, family, and friends regarding entries in this contest. It's this sort of activity that helps prevent accidents in all size firms and in all industries. And if accidents are prevented through this process, nobody loses. If only one accident was prevented as the result of this contest, then it was a whale of a success!

A neighbor is someone who'll exchange a cupful of sugar for an earful of gossip.

Some People Dread Decisions

In a British candy factory, girls were employed packing assorted chocolates. Each was supposed to arrange boxes attractively, but there was no standard design. Runners brought the trays of sweets; then the girls rearranged them as they thought best.

Did these girls find their work interesting because they were allowed to select their designs?

Hardly. Responsibility hung heavy on their hands and acted as an effective brake on their production. When a standard design was adopted, and the trays placed in a set pattern so that the girls could follow a regular path picking sweets automatically, production jumped. It jumped again when a moving band system was introduced, and each girl had only to put a given number of one kind of candy in the box.

Some people might say that such a system makes robots out of workers. But there is no form

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of slavery worse than that which compels close attention to a task that is fundamentally uninteresting. When the worker no longer has to expend his energy deciding unimportant questions, his mind is free from bondage to the machine, and he is better able to make essential decisions, either in his work or in his social life.

Spinoza is said to have composed his *Ethics* while grinding optical glasses. The average lathe operator can hardly be expected to devote his time to philosophy, but he is more likely to think out an improved type of toolholder, for instance, if he does not have to decide what speeds and feeds and depths of cut to use on each job he tackles, and to watch the job throughout to make sure his decisions were right.

The golden rule in routine work is to make each task as simple and mechanical as possible. At this level, variety provides distraction rather than interest.

Even in more skilled work, decisions are often a brake. In an instrument repair shop, a number of employees who had worked well for many years slowed down as they approached middle age and became unable to make decisions. A man was often seen to pick up an article from his bench, ponder over it, and replace it; to pick up another article, ponder over that, and replace it; to pick up a third and a fourth, and finally to return to the first article, unable to decide what he should do next.

Further evidence of the need for improving the psychological conditions was the high proportion of unproductive time. Men often lost 10 or 15 minutes at the end of each morning and afternoon spell — sometimes a good half-hour — by leaving their benches for some reason or other ostensibly connected with their work. As each man was responsible for the quality of work done for him in other shops, everyone had a perfectly good reason for leaving the benches. Actually, however, the workers were losing time because they had developed a semi-pathological resistance to making decisions.

Close control of output was physically quite unnecessary in this shop. Detailed scheduling of production was merely a psychological necessity. A "dictatorship of the job" relieved the workers of the endless drag of decision-making.

Examples could be multiplied, but enough has been said to indicate the importance of this phase of industrial psychology. At the comparatively simple level of routine manual operations, the need for decisions can often be removed by making some alteration in the physical surroundings — like placing the trays of chocolates in a set pattern. In non-routine work, on the other hand — from varied manual work to supervision and management by junior and senior executives — the drag of decision-making is best removed by establishing the principle which settles the correct line of action.

People should not have to think about their work any oftener than is absolutely necessary.

Golf is like taxes—you drive hard to get to the green and end up in the hole.

Tourists are people who drive hundreds of miles to get photos of themselves standing by a car.

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Cleaning these hands with a strong petroleum solvent instead of with a good industrial cleanser resulted in this dermatitis.

Chloracne, caused by clothing soaked in cutting oils, can be prevented by after-work showers and a daily change of work clothes.

Wash Away Irritants

Personal cleanliness, plus good housekeeping, are basic measures in the control of skin infections

DISEASES of the skin are taking a far larger toll of the nation's industrial output, in terms of lost time and compensation payments, than all other occupational skin diseases combined.

Cost to industry of the average industrial worker hit with a skin disease is:

—**Time off the job:** 10 weeks.

—**Compensation payments:** $100.

—**Medical care:** $90.

—**Total:** More than $100,000,000 annually.

These statements were made by Dr. Louis Schwartz, widely known industrial dermatologist and former medical director of the U. S. Public Health Service, at a press conference in New York announcing a new industrial guide booklet published by the Association of American Soap & Glycerine Producers, Inc., titled *The Prevention of Occupational Skin Diseases.*

A pilot survey conducted by the Division of Occupational Health of the Public Health Service revealed that industrial dermatoses annually account for 75.3 per cent of all occupational diseases.

Dr. Louis Schwartz (left), author of "The Prevention of Occupational Skin Diseases," and Roy W. Peet, manager of the Association of American Soap & Glycerine Producers, Inc.

In the 11-state area alone, 6,817 cases of skin diseases were reported, as against 2,241 cases of all other occupational diseases.

Adequate cleanliness programs, with proper washing procedures and wearing of clean and suitable protective clothing can bring about a radical reduction in skin diseases among America's 60 million or more industrial workers, Dr. Schwartz asserts.

Preventive measures can reduce the losses through skin diseases in all types of industry, Dr. Schwartz said. Incidence of these ailments ranges from a high of 7.5 per cent in the synthetic resin manufacturing industry to a low of 0.4 per cent for automobile manufacture. See Table I.

Among major causes petroleum products and greases head the list with 18.8 per cent. Fewest cases result from vegetable oils, fats, and waxes—0.2 per cent. See Table II.

Causes of occupational diseases are listed in the booklet under five main headings:

1. **Mechanical:** Friction, pressure, injury.
2. **Physical:** Heat, cold, radiation.
3. **Plant poisons:** Several hundred woods and plants.
4. **Biological:** Bacteria, fungi, mites, etc.
5. **Chemical agents:** "Primary irritants," such as strong acids or other corrosives, and "sensitizers" like TNT or resins that do not cause dermatitis at once but pave the way on further contact.

The synthetic resin, chemical, petroleum, and automobile industries rank high in a list of occupations subject to dermatoses. Other industries are food canning, rayon, rubber, and glass manufacture.

Chief among the preventive measures is personal cleanliness. Without it, no program can succeed. An effective program provides for quick removal from the skin of any irritants unavoidably contacted at work. It should:

1. Provide running hot and cold water, a suitable skin cleanser, and towels not more than 100 feet from the place of work, and enough showers that no worker need wait more than a few minutes.
2. Educate workers thoroughly in the importance of personal cleanliness through posters, safety meetings, and company publications.
3. Allow for medical skin examinations at periodic intervals.
4. Provide a skin cleanser selected after a study of the irritants involved in the plant processes.

Antibacterial properties, pH concentrations, and cleansing power of many kinds of available cleansers—solid, liquid, powdered, superfatted soaps; soluble and insoluble scrubbers; synthetic detergents, sulfonated oils, and waterless cleaners—are discussed in the booklet. There is also a special "indicator" soap that turns bright red in the presence of even minute amounts of TNT.

Beyond personal cleanliness, environmental cleanliness—often called "good housekeeping," is essential in any industrial plant. Good industrial housekeeping reaches into many corners. It includes ventilation and design to reduce initial contact with irritants to a minimum, and the provision of protective clothing where warranted.

Of considerable help, too, are vanishing, water-repellent, or solvent-repellent ointments and creams, and special lotions to prevent excessive drying and chapping of the skin.

* * *

Members of the technical committee of the Association which conferred with Dr. Schwartz in the preparation of the booklet are: Edward Randa (chairman), Armour & Co.; Dr. P. G. Bartlett, West Disinfecting Co.; H. Goldenberg, Huntington Laboratories, Inc.; G. H. Packwood, Jr., G. H. Packwood Manufacturing Co.; L. E. Lee, Sugar Beet Products Co.; J. D. Moore, Pacific Coast Borax Co.

The booklet will be distributed through the 152 member companies of Association. Sample copies may be obtained free. Further information may be obtained from Cleanliness Bureau, American Association of Soap and Glycerine Producers, Inc., 295 Madison Avenue, New York 17.

TABLE 1. Yearly Prevalence of Occupational Dermatoses by Industries

Industry	Number of Workers	Dermatoses	Per Cent
Synthetic resin manufacture	700	53	7.5
Chemicals and dye manufacture	2,500	176	7.0
Tanning	565	20	3.5
Oil refining	14,000	473	3.3
Candy manufacture	1,236	36	3.0
Fabric dyeing	3,800	76	2.0
Rayon manufacture	4,000	80	2.0
Steel manufacture	3,500	52	1.5
Fur dyeing	1,600	17	1.0
Rubber manufacture	8,000	84	1.0
Glass manufacture	5,700	54	1.0
Automobile manufacture	72,000	281	0.4
Total	117,601	1,402	1.2

TABLE 2. Causes of Occupational Dermatitis

Material exposure	Number	Per Cent
Petroleum products and greases	7,805	18.8
Alkalis (and cement)	4,881	11.7
Solvents	3,265	7.8
Plants and woods	2,719	6.5
Metals and metal plating	2,482	6.0
Rubber and its compounds	1,314	3.2
Burns, physical and mechanical agents	1,313	3.2
Chemicals, unspecified	1,253	3.0
Paints, enamels, and varnishes	1,132	2.7
Acids and acid fumes	978	2.4
Dyes and dye intermediates	974	2.3
Chromates and chromic acid	727	1.7
Biologic agents	520	1.3
Coal tar products	462	1.1
Furs and fur dyes, and hides	425	1.0
Synthetic resins	390	0.9
Nonmetallic elements	185	0.4
Oils, vegetable (oils, fats, and waxes)	92	0.2
All other known exposures	8,064	19.4
Unknown exposures	2,647	6.4
Total	41,628	100.0

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Compiled by Ruth Parks, Librarian, NSC

MAGAZINE ARTICLES

Air Pollution

Pitfalls in Using Maximum Allowable Concentrations in Air Pollution. H. H. Schrenk. American Industrial Hygiene Association Quarterly. Sept. 1955. p. 230.

Boilers

Flame Failure Safeguards Improve Boilers Safety. John M. Englesby. Electric Light and Power. Sept. 1955. p. 142.

Carbon Monoxide

Carbon Monoxide Asphyxia. William D. Claudy, Major, USAF (MC). United States Armed Forces Medical Journal. Sept. 1955. p. 1315.

Chemicals

The Toxicity of the Products Formed by the Thermal Decomposition of Certain Organic Substances. J. F. Trean and others. American Industrial Hygiene Association Quarterly. Sept. 1955. p. 187.

Construction

Top-to-bottom Safety Program Gets Results. Frank E. Burkett. Construction Methods and Equipment. Sept. 1955. p. 104.

Electrical Industry

Safety Practices for Underbuild or Overbuild Circuits. R. C. Johnson. Electric Light and Power. Sept. 1955. p. 131.

Engineers

Duties for a Safety Director. T. Ramsay. Canadian Mining Journal. Sept. 1955. p. 56.

Eye Program

Correcting "Bad Eyesight." Industrial Bulletin. Sept. 1955. p. 14.

Gas Industry

Safety—Natural Gas' Big Story. C. C. Westmoreland. American Gas Association Monthly. Sept. 1955. p. 11.

Handling Materials

Handling Materials Safety. A. G. Schrveck. Supervision. Aug. 1955. p. 20.

Health

Experiences with the Control of Silicosis in a Foundry. Leslie H. Osmond. A. M. A. Archives of Industrial Health. Aug. 1955. p. 221.

The Disability Found in Persons Exposed to Certain Berylluim Compounds. Harriet L. Hardy. A. M. A. Archives of Industrial Health. Aug. 1955. p. 174.

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C. Larson. Personnel. Sept. 1955. p. 135.

Inspection

Ultrasonic Inspection Speeds Drive-tubing Output. Leo Adams. American Machinist. Sept. 12, 1955. p. 134.

Lumber Industry

How Safety Can Be Made Practical. The Lumberman. Sept. 1955. p. 60.

Management

What Top Management Expects from a Safety Prevention Department. Carl M. Russell. Mutual Insurance Bulletin. Aug. 1955. p. 11.

Management and Safety. H. M. Ferguson. Canadian Mining Journal. Sept. 1955. p. 80.

Marine Industry

Safety in the Port of New York. G. H. E. Buxtan. Safety Standards. Sept.-Oct. 1955. p. 16.

Mines

Accident Prevention at the Noranda Smelter. F. H. Judge. Canadian Mining Journal. Sept. 1955. p. 66.

A 50 per cent Reduction in Compensable Mine Injuries. Harold Davis. Coal Age. Sept. 1955. p. 58.

Radiation Hazards in Uranium Mines. A. J. Cipriani. Canadian Mining Journal. Sept. 1955. p. 59.

Stagings for Drilling and Timbering. M. R. MacPherson and E. W. Cheeseman. Canadian Mining Journal. Sept. 1955. p. 63.

Petroleum Industry

Oil Refineries Hazardous, but Show Good Fire Record. Fire Engineering. Sept. 1955. p. 847.

Saws

Circular Saw Accidents. Frank S. McElroy. Safety Maintenance and Production. Sept. 1955. p. 13.

Solvents

Less Toxic Solvents Replace Carbon Tetrachloride. Safety Standards. Sept.-Oct. 1955. p. 1.

Textile Industry

How Chatham Controls Wool Waste. Thomas B. Winston. Textile World. Sept. 1955. p. 115.

Trucks

Hazards of Refueling. Factory Mutual Record. Sept. 1955.

Waste

Limitations of Water Treatment Methods for Removing Radioactive Contaminants. Conrad P. Straub. Public Health Reports. Sept. 1955. p. 897.

BOOKS AND PAMPHLETS

Building Codes

Uniform Building Code. Vol. 1, 1955 edition. Pacific Coast Building Officials Conference. Los Angeles 14. 1955, 383 p.

Mines

Effect of Changes of Atmospheric Pressure on Gas Emissions from Worked-out Areas in an Illinois Coal Mine. U. S. Bureau of Mines. 1955. 21 p. Report of Investigation 5147. Free. Available from Bureau Publications Section, 4800 Forbes St., Pittsburgh 13, Pa.

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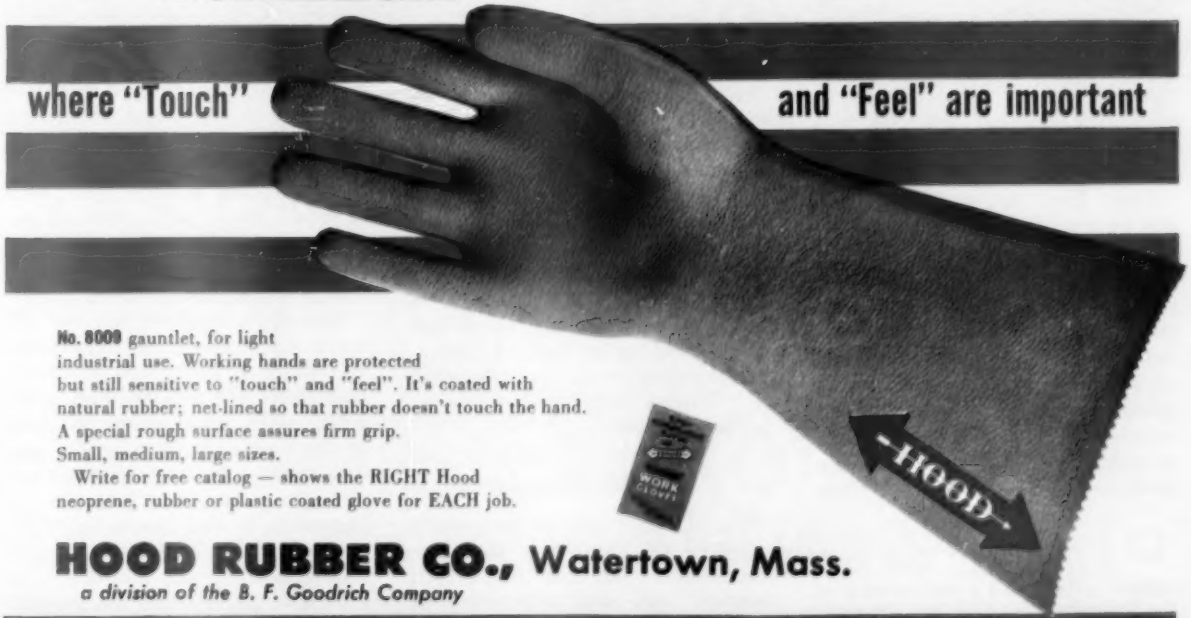

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There May Be Destruction in

Junior's Chemistry Set

By CARL L. ROBERTS

BLASTS and household wreckage from Junior's chemistry set have been subjects for cartoonists for years. There is much sad truth in their jesting, however. Possible dangers exist for the amateur chemist in the inadvertent preparation of explosives. Even more hazardous is the deliberate preparation of explosive mixtures by misguided persons.

Amateurs may honestly believe they can exercise full control over their diabolical compounds. Not so, says history. Generation after generation of the same types of venturesome quacks, ignoramuses, novices, children, and even professionals with gambling blood in their veins may be cited. They have been blowing themselves and innocent bystanders to kingdom come with alarming consistency year after year.

One family of chemical compounds is the cause of more accidental explosions than all of the others handled by beginners. That family is the chlorates. "Chlorate the Killer," should be a term memorized by all students of chemistry and by everyone who thinks of making his own firecrackers.

Like fire, potassium chlorate can be a good servant when properly used, but can be a very bad master. Chemists know it as the potassium salt of chloric acid with strong oxidizing tendencies. Sodium chlorate and other metal salts of chloric acid are similar in nature in varying degrees. Their relatives, the perchlorates, are usually less hazardous than the chlorates, but have caused their share of trouble when improperly used. For example, the explosion of a perchlorate at a plant of Aerojet Corporation, August 21, 1946, may be cited. Eight were killed and 25 were injured.

Los Angeles readers may recall a disastrous explosion in their city February 20, 1947, when an irresponsible chemist combined perchloric acid and a highly oxidizable metal. The blast wiped out a city block, killed 15 and injured 150, demolished 30 automobiles, destroyed or damaged 250 homes and 25 other buildings.

Immediately, there were loud cries far and wide for legislation to prevent such operations in densely populated areas. Nevertheless, such fantastic disasters continue. St. Louis and Philadelphia had similar tragedies in 1954.

Potassium chlorate is a white crystalline material similar in appearance to fine table salt when finely ground for its customary commercial uses. It is rich in oxygen and will readily give up that oxygen to anything that can be burned. When mixed with any such material the mixture may decompose with explosive violence. Thus, it finds wide use for such applications as matches, percussion caps or primers, fireworks, railroad torpedos, and a few explosive mixtures for blasting. Its use for fireworks and flares has been forbidden by law in England, and in many countries the mixing of chlorates with sulphur is prohibited by law.

An Old Offender

The properties of potassium chlorate were known to the German chemist Glauber in the 17th century and soon afterward to French Count Claude Berthollet who showed ways for purifying and handling it before 1788.

The first recorded disastrous result of attempts to use potassium chlorate for gunpowder occurred in 1788 when Berthollet attempted to demonstrate that it could replace saltpeter to yield a more powerful powder. The mill blew up killing two observers. Since then, repeated attempts to make gunpowder with potassium chlorate have invariably resulted in disaster.

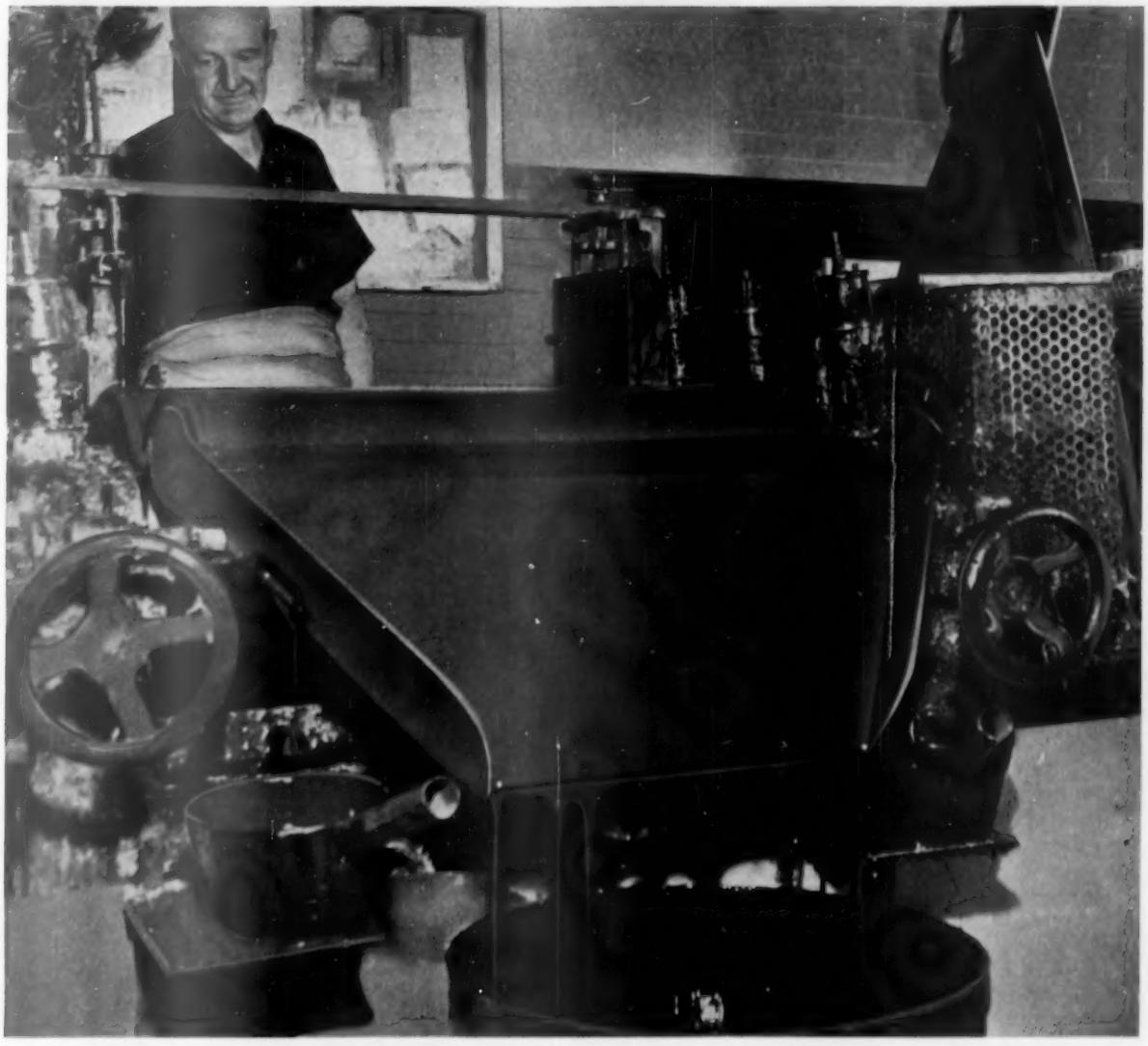
First-Hand Experience

The author of this article has had first-hand experience with mixtures containing a chlorate. One June day, fresh from a high school chemistry class, he undertook to prepare some fireworks at home for Independence Day. A spoonful of potassium chlorate and some other materials were mixed together and put into a small paper pillbox. Later, the paper lid of the box was lifted, whereupon the material exploded with unparalleled violence, as it should have done, resulting in broken fingers, torn flesh, injury to eyes and ear drums, and terrific pain. Damage to furnishings in the room and the family's peace of mind, along with medical expenses and inactivity for the summer were additional products of that youthful indiscretion.

School instructors are not always judicious about chemicals, and there is justifiable suspicion that many are not thoroughly familiar with the dangers of some of the materials they handle and demonstrate to impressionable youngsters. In one instance an instructor mixed potassium chlorate with two other materials and was smoothing the mixture with a stick of chalk when the inevitable explosion occurred. His injuries included the loss of three

CARL L. ROBERTS is a staff member of the Explosives Research and Development Department, Olin Mathieson Chemical Corporation, East Alton, Ill.

FIRE HAZARD FOILED!



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fingers. It was found that the school's text books gave details for preparing this mixture and other explosive combinations.

A boy of 13 was injured by the explosion of about an ounce of a mixture of sulphur and chlorate given to him by a qualified chemist. The chemist was prosecuted and fined, but the boy will carry his scars for life.

In 1945 a chemist let a lad of 12 have some potassium chlorate and other materials for mixing. He put them in a jar with some iron filings. His young friend offered to assist in the mixing by shaking the jar, but it exploded violently when he picked it up and he was fatally injured.

In a similar accident a boy of 15 shook a jar containing a chlorate mixture. The explosion blew off his hands and so injured him that he soon died. Two friends were also injured.

The procession continues, often involving persons who should know better. A few years ago a young "inventor" approached one of America's leading explosives producers and offered to reveal a powerful, secret explosive for a fee and manufacturing royalty. After carefully questioning the young man, the president of the company deduced from the descriptions of the explosive's performance that it involved the use of a chlorate. He cautioned the young man to abandon his efforts because certain death could be predicted if he continued. The inventor scoffed at the voice of experience and set up his own manufacturing building. Within a few months, the accident occurred. The young man was away at the time but his father and uncle died in the ruins of the factory.

In March 1952, the chemistry building at Howard University in Washington was rocked by a blast that killed four and injured several others. Four janitors were removing some sodium chlorate from a basement storage room under the supervision of the university's chief custodian. He was there because he had been told that sodium chlorate was a dangerous chemical.

While some cartons of the material were being moved on a hand truck, one of the janitors noticed that a bottom carton was beginning to smoulder. He rushed outside in time to escape the blast and was the only one of the five left alive. Two possible causes of the explosion were suggested. One was a spark from the wheels of the hand truck; the other was contamination of the sodium chlorate by organic matter.

A fatal accident in England in 1935 illustrates further that even the profesisonally trained are not safe with such mixtures. An engineering college student took home a few ounces of materials including two ounces of potassium chlorate. He mixed them in his bathroom, intending to make a smoke bomb. The mix exploded with great violence, wrecking the room and damaging the house. He suffered terrible injuries and died soon after arrival at a hospital.

The use of water to desensitize chlorate mixtures may seem to be appropriate, but that, too, has its dangers. Once in an Armistice Day celebration a chlorate pyrotechnic item that had misfired was placed in a pail of water. Later it was removed from the pail and taken to a storage shed. Some time elapsed and an employee heard a slight sound and saw that the device was smoking. He tossed it out of the shed and it exploded five minutes later. Subsequently, the same type of mixture was found to heat rapidly when moistened.

Mixtures containing chlorate and sulphur often explode spon-

—To page 119

Electronic Inspection of Car Axles

MIDGET AUTO (above) equipped with Reflectoscope enables accurate internal inspection of 320 freight car axles per day without disassembly and removal of trucks. Right, close-up of ultrasonic inspector which was developed by the Chesapeake and Ohio Railroad and Sperry Rail Service, of Danbury, Conn.

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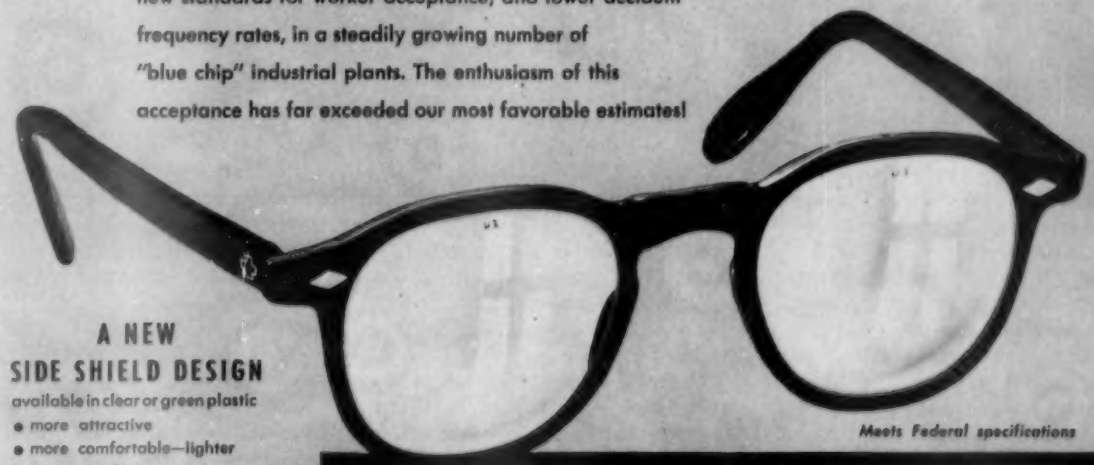
was a daring innovation when it was introduced at the 1954 National Safety Congress. Today, there is no longer any question that industry was ready for—and welcomed—a wholly new approach to industrial eye protection.

Here is the record: During the past year this new SAF-I-SPECTACLE has established new standards for worker acceptance, and lower accident frequency rates, in a steadily growing number of "blue chip" industrial plants. The enthusiasm of this acceptance has far exceeded our most favorable estimates!



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a lighter yet stronger lens, completely eliminating the objection of heavy weight . . . with twice the strength and half the weight of hardened glass. Available in Rx or Plano, bifocal or single vision.

Choice of 44 and 47 eye sizes, integral or adjustable nose pads, spatula or riding bow cable temples. Also available with hardened glass lens in Plano or Rx

* OPTILITE ® — a new superior safety lens material . . . not a glass . . . not a thermoplastic, but an exclusive USSSCO formula of compounded resins.

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Wild Girls Endanger Governor

Scenes in and near Belhaven, N. C., in the wake of hurricane "Ione." The state highway department worked around the clock helping to restore communications.

By TARVIA JONES

YES! These wild girls that came from the Atlantic have truly been just that with their acrobatic capers that were devastating beyond belief. All of those who have seen the wreckage truly hope and pray they'll never see another.

Hurricanes Connie, Diane and Ione kicked so high and spread so must water and untold loss that North Carolina's beloved Governor Luther Hodges—well schooled through long years of *"Service Above Self"* in Rotary and the great humanitarian that he is—couldn't and wouldn't shirk his responsibility to the four and a half million citizens depending on him for leadership and guidance. He took off and literally covered the waterfront, all *330* miles of same by plane and by car. At one time the water cut him off from a retreat, so the official State car had to be left behind and our highway boys had to bring our Governor out on top of one of the State's larger motor graders.

While inspecting the sea wall thrown up for protection at one point along our 330 miles of coastline, Ione started undermining the terra firma under him and he was barely saved in the nick-o'-time. It almost gives us cold chills to see him risk his life to get first-hand information and check disaster details personally and looking out for the safety and welfare of his people.

Unusual safety problems galore arise and I must say that our highway workers (engineers down to laborers) have been the "Men of the Hour" and have worked in shifts around the clock in preserving life and limb. Whenever water came in and flooded highways, homes and carried out bridges, our highway men—on constant patrol to protect human lives—stopped and helped people to safety and flagged traffic.

Twenty-one spans of North River Bridge below Beaufort were carried away in Ione's fury and 19 spans at Oriental over Smith Creek were lost in the same hurricane. Since many of our roads are still under water in places it has been impossible to assess the total highway damage done by Ione, or to enumerate the number of bridges missing.

On a trip down east, 50 miles before I reached the real water area, I detected an odor and the further I went the more pronounced it became. When Diane came tearing in from the Ocean along our coast, she pushed the salt water up into our sounds, rivers and inlets and this killed the freshwater fish by the millions and literally lined the banks with dead fish creating quite a problem.

One man who had 4,000 turkeys had none after the storm.

Horses, mules, hogs and other livestock were drowned and stock belonging on one side of a river was found clear across the other side dead. One man spent a week with two helpers—digging holes and burying livestock that had been drowned.

What would you do if a catastrophe like this hit your State? Better plan now—for when it happens you don't have much time to think. You need plenty of action in a hurry if you're going to save human lives.

Our Maintenance Department reported that Connie and Diane caused our Highway Department $509,455 worth of damage. From all reports I assume Ione's damage will far exceed this when all reports are in and tabulated.

One of our leading State papers noted that overall damage to buildings, homes, crops, livestock, roads, bridges, etc. would total 160 million dollars—all caused by Hurricane Ione.

The author, a consulting engineer, is a member-at-large of the National Safety Council's Public Employee Section.

VALLEY OF DESTRUCTION was the main street of Winsted, Conn. Among the first to get through the floods was a telephone truck carrying emergency power equipment to provide service in the flooded telephone exchange at the lower end of the street.

TELEPHONE MEN GO TO WORK BY BOAT to speed drying of equipment in telephone exchange at Putnam, Conn., where service was provided by temporary switchboard on higher ground. In Stroudsburg, Pa., linemen and operators were flown in helicopters.

OUTRACING THE FLOODS. Radio telephone service was set up at strategic points even before the floods reached their peak. Man in automobile makes emergency call while Mayor Moule of Phillipsburg, N. J., and telephone man stand by.

The Deluge of Diane

Hurricane floods emphasized the value of the telephone and the teamwork of telephone people in emergencies

Seldom has a water-borne disaster struck with more concentrated fury than the floods of Hurricane Diane, which hit several eastern states.

"I never saw anything so terrifying in my life as when that river came down," said the telephone manager in Winsted, Connecticut.

Out of the havoc of the floods have come countless stories of courage and the good American spirit of helping one another in times of trouble.

Among them are heart-warming tributes to the telephone men and women who kept service going and worked so hard to restore it wherever lines had been washed out. Together with the Red Cross, Salvation Army, National Guard, Civil Defense workers and all their neighbors in the stricken communities, they did their part in the tremendous job of rescue and restoration.

Many former telephone operators and those off duty reported back to their jobs. Trained, experienced crews from the telephone companies and Western Electric moved in fast with equipment and supplies and worked 'round the clock.

Disaster comes suddenly. But wherever it strikes you can depend on telephone people to do everything possible to provide you with telephone service.

BELL TELEPHONE SYSTEM

Gold Mine of Ideas

—*From page 29*

would like you to give this some further thought for I am confident that you can come up with the right solution. I might suggest that you discuss this, after more thought, with our safety engineer.

Very truly yours

Sample 2. Informal, explicit:

DEAR JOHN:

We take this opportunity of thanking you for your Suggestion No. 101. You will recall this suggestion referred to a change in the traffic layout in the shipping department in an attempt to eliminate the hazard that now exists.

The suggestion was carefully investigated and considered and it was found that your suggestion if put in effect would present a bottleneck at the north end of the line.

If there is any doubt in your mind regarding our decision, we hope you will feel free to discuss the matter with Jim Smith, the safety engineer or with the writer. I am most confident that Jim would be very glad to discuss the matter with you in detail. I suggest that you see him.

We hope that you will continue to make full use of the Suggestion System as a means of bringing to our attention more accident prevention ideas.

Very truly yours

METHOD NO. 3

Evaluation of Intangible Safety Suggestions

This method utilizes grading and a chart.

The three principal factors to consider when determining the value of a safety suggestion in this method are as follows:

1. **Degree of Hazard**
   a. MINOR . . . includes defects or lack of safeguards which ordinarily may result in accidents causing nondisabling injuries to one person.
   b. MAJOR . . . includes defects or lack of safeguards which ordinarily might result in an accident involving permanent injury to one person or nondisabling injuries to several workers.
   c. EXTREME . . . includes defects or lack of safeguards which ordinarily might result in an accident involving a fatality or permanent injury of several workers.
2. **Originality**
   a. COMMON . . . refers to suggestions concerning ordinary types of hazards, such as defective guards, poor lighting, road repairs, etc., which would ordinarily be corrected by routine maintenance within a reasonable length of time.
   b. UNUSUAL . . . refers to suggestions which report hazards which safety men or supervision would not uncover (ordinarily) or which present an improved method of guarding against hazards.
3. **Application**
   a. LOCAL . . . refers to suggestions which apply to a single condition or the operation of one department.
   b. GENERAL . . . refers to suggestions which apply to conditions or practices which concern more than one department or a single hazard.

After judging these three factors . . . the award should be made in accordance with the following:

AWARD	Degree of Hazard			Originality		Application	
	Minor	Major	Extreme	Common	Unusual	Local	General
$ 3.00	X			X		X	
5.00	X				X	X	
7.00	X				X		X
5.00		X		X		X	
7.00		X			X	X	
8.00		X		X			X
10.00		X			X		X
15 — 25*			X	X		X	
25 and up*			X		X	X	
20 to 30*			X	X			X
25 and up*			X		X		X

* In evaluating suggestions relative to extreme hazards, the lowest reward should usually be made. The range is provided to take care of outstanding suggestions that deserve additional reward.

Sample 3. Smooth opening paragraph. Full explanation. Suggesters ego built up. Good closing.

DEAR SAM:

It is some time since you submitted the suggestion mentioned above. However, there were many factors to be considered which made it impossible to render decision sooner.

Several ideas have been presented to eliminate the finger injuries on cutter number 36 in the past, but have proved impractical. I will say this . . that your suggestion is superior to the others, but it too is not practical since it would interfere with the placing of the die in the process of the cutting operation.

We do wish to compliment you on your ingenuity and your initiative in making this suggestion. It appears to us, especially to Jack Jones our safety engineer, that some further thought to the matter may bring fruitful results to you. Perhaps if you get together with Jack, the thing can be licked. We hope so, since we have experienced some lost-time injuries on that machine.

Cordially

Examples of opening paragraphs for letters of rejection:

Your suggestion concerning a guard for press number 37 has been carefully investigated by both the chief engineer and our safety director. They advised us that although this was an idea well worth trying, it did not prove as successful as we had hoped.

* * *

Thank you very much for your suggestion relating to . . . . We realize that you have spent a great deal of time and effort in considering and submitting this idea and we sincerely appreciate it.

Examples of closing paragraphs:

We thank you very much for your interest in accident prevention in your submitting this suggestion and sincerely hope you will continue to forward other ideas for consideration. Please let us have the benefit of your constructive thinking.

* * *

I regret very much that it is necessary for me to advise you that favorable action was not forthcoming as a result of your suggestion. It certainly would have been much more to my liking to be able to advise you that your idea proved successful. I hope that you will continue in the future as you have in the past to forward safety suggestions.

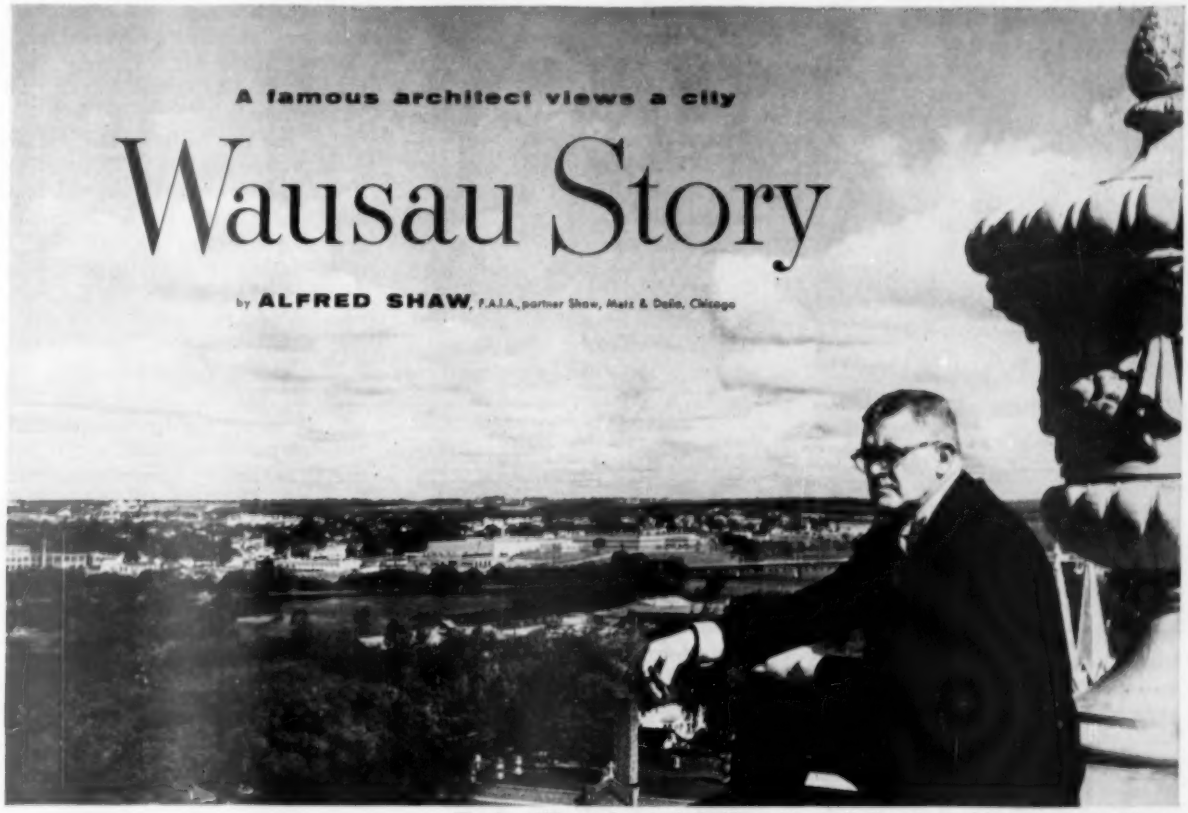
* * *

We are sorry that the idea you submitted did not qualify for an award. If you will review the Suggestion Booklet you will note that such safety ideas cannot qualify for an award. Let's hear from you again with an idea such as the one that was adopted six months ago. . . it certainly has saved some fingers.

A famous architect views a city

Wausau Story

by **ALFRED SHAW**, F.A.I.A., partner Shaw, Metz & Dolio, Chicago



The view of Wausau from atop the Hotel Wausau interested Mr. Shaw, who not only helped design such buildings as Chicago's Merchandise Mart and Argonne National Laboratories, but is also a member of the Chicago Plan Commission.

"ABRAHAM LINCOLN said: 'I like to see a man proud of the place in which he lives' . . . and 'live in it so that his place will be proud of him.'

I felt much of this pride in Wausau, as I watched workmen erect a shopping center . . . as I talked with young people in their new homes.

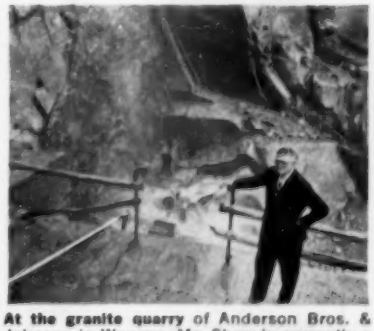
Wausau should be proud. It hasn't all been easy.

We visited a granite quarry where the famous Ruby Red granite is mined. There, on the quarry face, I noticed a fine apple tree growing out of almost solid rock. It reminded me of Wausau. A solid background of lumbering . . . hard men, tough timber and machines. And out of it has grown something very good.

When they hauled away the big timber years ago, the people who pioneered in Wausau could have left too. Instead they stayed. They and their children built a new Wausau. They're still at it.

This has meant hard work. It takes hours to cut a single chunk of granite. It takes time, too, for a city to build industries, schools and subdivisions. Wausau is doing it, and has a Planning Commission to see it's done right. I see now why so many say that the 'Wausau way' is a good way of doing business. It is."

In talking with Mrs. Richard Heike of Wausau, Mr. Shaw remarked: "The back yards of these homes look better to me than many front yards I've seen."



At the granite quarry of Anderson Bros. & Johnson in Wausau, Mr. Shaw is currently a member of the group designing U.S. and naval bases in Spain.

Employers Mutuals of Wausau are "good people to do business with."

During his Wausau visit (see story left) Mr. Shaw remarked: "When we finish a building we don't just walk away from it. We keep working until everyone is satisfied."

This, too, is the way we like to do business. One of Employers Mutuals' major lines of insurance is **workmen's compensation.** We believe it's important to *keep* working on our policyholder's problems, not merely wait until trouble develops.

Take the matter of accidents. They are controllable. The fewer a company has, the more it can save on costs. Therefore, Employers Mutuals works *continuously* to help you prevent accidents. Trained safety engineers and occupational health nurses *team with your own people* to reduce accidents and save you money. Their services cost you nothing, yet can contribute impressively to your profits. We'd like to talk over our services with you. Phone our nearest office, or write to Employers Mutuals, Wausau, Wisconsin.

Employers Mutuals *of* **Wausau**

Can Safety Stand?

—From page 21

at fault in causing accidents.

At the same time, safety men are not at all convinced that the degree of pure engineering required to deal with these physical matters must be greater than the salesmanship, business management, philosophy, psychology, and knowledge of accident causation and prevention needed in safety work.

It would take no great stretch of imagination to visualize that a physician might have as much reason as a member of the safety profession to call himself an engineer. Certainly, engineering is required in the practice of medicine. Diagnosis is a kind of survey or inspection leading to fact finding, analysis, and conclusions. Remedies, as in engineering, include guarding, or covering, relocation, rearrangement of habits or procedures, light, heat, ventilation, etc. In many cases, medication as such does not play a part at all. Yet medicine stands on its own feet.

Accident preventionists like the idea of allying with engineering chiefly because its objectives are related in a practical sense. Safety, however, is by no means all engineering, because it is not limited to industry. It includes the farm, the home, traffic, transportation, public activities, and education at all school levels. It would seem questionable whether engineering as commonly defined is the most significant factor in these non-industry fields.

Safety is unique in that it encompasses knowledge, thought, and action of a broader scope than exists in other professions. Its importance, as measured by the effect on life, health, and property, and on the production of goods and services, rates with the topmost activities. In World War II the U. S. Government recognized this when it required all agencies furnishing materials and services for War Department and all military installations to maintain effective safety programs.

Nation-wide acceptance of its importance is also indicated by the continuance of the two President's Conferences — one on occupational safety and the other on traffic safety.

Safety *could* stand on its own feet. Other established and respected professions do so. Public relations is one. Personnel is another. Purchasing, sales, employment, production, and business management are others. In these professions some engineering is involved, also some psychology and philosophy, just as in safety. Yet they stand on their own feet without sensing the need for a direct tie with other professions.

Many graduates of engineering schools enter these professions and practice them successfully. They find their engineering training of great value but they do not carry "engineering" into their job titles. Might it not be a long-term advantage if safety specialists did likewise?

Of course, at such a suggestion the matter of titles or names crops up. The word safety itself has well earned the right to live. It is solidly established and highly respected but a companion word to replace "engineer" would be needed.

"Safety technician" might do to describe the person engaged in the "inspector" type of work. "Safety director" or "safety supervisor" would suit those with greater responsibilities.

For the fully-qualified person who is more than a technician but not in charge of the direct work of preventing accidents in a specific establishment, one might fall back on "accident preventionist," "safety specialist," "safety advisor," "safety consultant," or "safety analyst."

For the profession itself, "accident prevention" is fully descriptive. Safety councils would not need to change titles. National groups employing the term "engineer" might consider such names as "American Society for the Prevention of Accidents," or "American Safety Institute."

The safety departments of industrial establishments that are largely of an engineering nature, such as public utilities, might use the title "Safety Engineering and Loss Control Department." This would imply inclusion of safety as related to pure engineering, also the broader aspects of safety as related to personnel, employee morale, supervision, training, and business management in general. As such, it would feature engineering while remaining in harmony with the objective of creating a distinctive place for professional safety.

If the path toward a distinctive safety profession were followed, colleges should be encouraged to provide a distinctive degree or a BS major in safety. Because the broad scope of safety includes some, but not necessarily the full extent, of civil, mechanical, chemical, and electrical engineering, as well as philosophy, psychology, business administration, English, speech, hygiene, economics, and mathematics, selected courses and credits must be planned to provide a properly balanced curriculum.

Cooperation with Engineering Societies

The safety profession engages actively with engineering groups in research, preparation of codes and papers, and in committee work. It encourages the formation of safety divisions within engineering societies and invites their representatives to participate in safety activities.

Could cooperation of this nature continue effectively if the safety profession became distinct from engineering? Careful consideration invites not only an affirmative reaction but also the thought

it might continue on an even more effective basis.

As a separate and distinct profession it could urge engineering societies to establish safety sections within their more specific fields, just as the safety profession would establish mechanical, chemical, civil, or electrical sections with the broader field of safety. There need be no conflict.

The engineering societies recognize safety as a part of their profession, as is so well illustrated by the Engineering Canons of Ethics. Safety recognizes that engineering is a part of its activity. In mechanical engineering societies the safety division would specialize in safety as it relates to research, design and fabrication of structures, machines, etc.

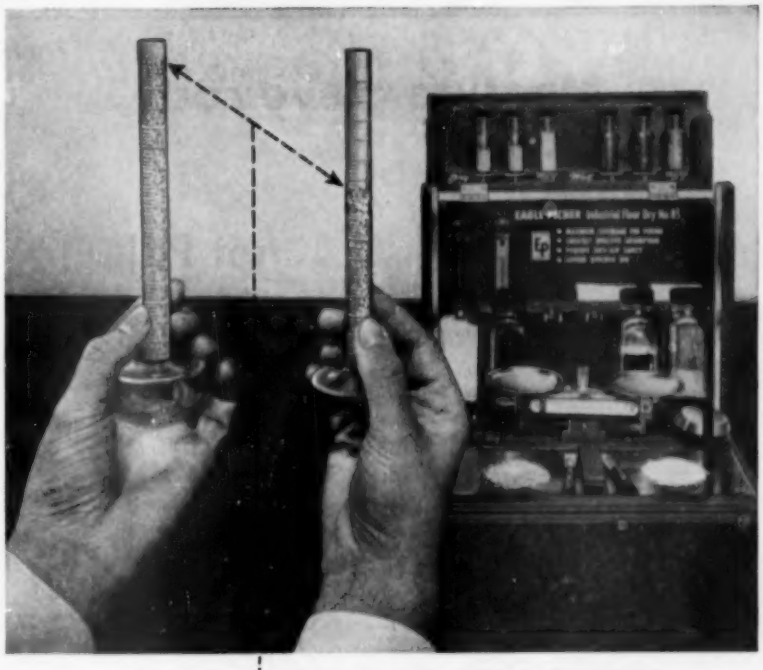
In a chemical society the safety division would deal with the prevention of accidents as related to the composition of substances. So too would safety societies establish engineering sections and cooperate with civil, electrical, and other engineering societies while standing fully and firmly on their own feet, thus avoiding criticism that they were trying to divert attention from worthy but differing objectives.

In its own field, full recognition could be given by the safety profession to engineering without detracting from its own over-all objectives. Undoubtedly, engineers would continue to predominate as officers and members. There would be room to spare at the top for mechanical, civil, chemical, and electrical engineers. The only difference would be that these engineers would be applying their specific training to safety instead of adapting safety to the main objective of some branch of engineering.

Safety Has Benefited

In retrospect it is evident that safety has benefited greatly by identification with engineering *per se*. If this could be called hitching one's wagon to a star, it is natural and defensible. Nor did engineering suffer in the process. Both groups gained.

Of necessity safety began with emphasis on mechanical engineering. Industrial environment was conspicuously unsafe. Even if



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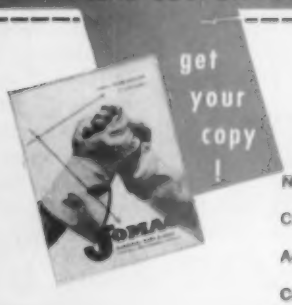

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education, supervision, organization, cause analysis, and so-called human engineering had been thought of in 1833 when factory inspections were established in England, or in 1867 when the same thing was done in Massachusetts, it would have been too early for application.

The first step, obviously, was to clean house; to do an engineering job. In a more advanced form such work is still of vital importance. It must continue as long as men and machines comprise the industrial picture.

Over the years changes have taken place. Thanks to engineering, tools, structures, machines, and processes are more safely designed, constructed, and installed. While holding the line on mechanical engineering, the greater share of attention is properly gravitating toward control of man performance.

An erroneous belief, still held in some circles, is that although unsafe physical conditions may not cause the *most* accidents, they nevertheless cause those that are most severe and costly. Review of the most serious groups — fatalities — in traffic, industry, agriculture, or the home, shows at a glance that man failure is the predominant cause.

To de-emphasize the term engineer before building up a suitable substitute would be as unwise as for a man to let go one rung of a ladder before he had hold of another. Engineering has been good to safety and should always remain associated with it. Nevertheless, it seems debatable whether engineering should dominate safety any more than it should dominate medicine or law.

Extent of Engineering

There seems to be no universally accepted definition of safety engineering. One that fits well is "the art and science of preventing accidents." Regardless of formal definition, safety can truthfully be said to require engineering, sometimes of the highest degree, as in calculations involving higher mathematics when determining causes for failure of turbines, autoclaves, wind tunnels, and test devices in airplane engine plants.

Engineering is required in

checking the sequence of steps, the quantities, timing, and temperatures of materials and processes for safe operation in manufacturing explosives, heavy acids, and caustics; in checking design, construction, and deterioration of huge steam or electrical generators; in determining the probability of loss in the building of bridges and dams, steel structures, and piers; and in demolition and salvage.

Guard design is a vital part of accident prevention. It requires skill, inventiveness, knowledge of kinematics and strength of materials, and ability to make and read engineering drawings. In these activities, also when checking for adequate shoring of buildings, safe floor loads, grounds, and protective devices for electrical equipment, lighting and ventilation, scaffolding, and literally hundreds of other situations, the work, although not necessarily creative or of the highest mathematical order, is nevertheless true basic engineering.

In contrast, it remains true that engineering, as measured by knowledge and application of mathematics, physics, and the natural sciences, is not the greatest factor in safety. In practically all accidents a mechanical element is a contributing factor. It should be considered and eliminated where possible.

However, the more direct cause in the majority of cases — the one most likely to result in a similar accident — is a form of man failure, a personal act. This statement would seem to be self-evident when one considers motor vehicle accident causation as well as many phases of home, farm, school, and industrial activities.

Measured in this way, unsafe personal acts cause more than 80 per cent of all accidents. For this reason the accident preventionist must know what safety is, what it accomplishes, and how best it can be accomplished, particularly as it is affected by attitudes and actions of persons.

The accident preventionist knows procedures and organization and must be somewhat of a teacher, a publicist, a salesman, and an analyst. He should be at

—*To page 94*

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for Better Value

Can Safety Stand?

—From page 93

least a rule-of-thumb psychologist. He makes speeches and writes papers. He must be patient and persistent, and be able to observe detail and describe, both orally and in his reports, conditions and circumstances discovered by survey, analysis, deduction, and inquiry.

All of this would seem to require more than engineering of a purely mechanical nature, both in required time of application and in the kind of knowledge needed. The questions therefore arise:

Is it in the best interests of the safety profession to tie itself wholly and irrevocably with engineering as is the case if it is identified permanently by such titles as safety engineer and safety engineering?

Is it best also to ally itself exclusively with engineering societies which place predominant weight on the sciences dealing with the mechanical properties of structures and materials?

It is the writer's conviction that it is high time to take stock of values and objectives; to decide now whether it is best for the safety profession and for society which it serves so well to identify itself even more closely with engineering, or to stand on its own feet.

New Standard for Home Freezers

A HOME FREEZER conforming to the new American Standard B38.3 has been tested to meet rigid requirements of performance. The American Society of Refrigerating Engineers provided leadership as sponsors of a national committee which developed the standard in accordance with the procedures of the American Standards Association.

The extensive use of frozen foods by the armed forces during World War II gave impetus to an avalanche of food freezers, some designed and built by persons obviously lacking adequate technical knowledge for producing freezers of good quality.

Refrigeration engineers and home economists united forces to rescue the consumer from unreliable equipment. The National Electrical Manufacturers Association, U. S. Department of Agriculture, and a cross section of organizations representing consumers, manufacturers, and distributors joined them on the Committee for Rating and Testing Home Freezers, which was organized according to the procedures of the American Standards Association. This committee was composed of experts from every field concerned. Its deliberations and final reports were weighed and approved by the ASA, and are now being published by the American Society of Refrigerating Engineers.

The purpose of the American Standard is to provide a uniform procedure for rating and determining the performance of home freezers according to specified laboratory conditions.

This means that if a prospective buyer or user buys a home freezer tested according to the American Standard for Testing and Rating Home Freezers, he can rely on its power consumption and per cent of running time. The stated volume or storage capacity, including storage weight, is accurate and all instruments used were pre-tested and correctly placed.

The following organizations helped to develop the American Standard: American Society of Refrigerating Engineers, U.S. Department of Agriculture, American Council of Commercial Laboratories, Electrical Testing Laboratories, National Electrical Manufacturers Association, National Association of Ice Industries, American Hospital Association, American Hotel Association, American Home Economics Association, Good Housekeeping Institute, Consumers Union of United States Inc., National Retail Furniture Association, National Retail Dry Goods Association, National Bureau of Standards, American Institute of Architects, General Services Administration, the National Institute of Ice Refrigerator Manufacturers, and The American Gas Association.

STOP THAT FIRE
BEFORE
IT STARTS
Smoking is Dangerous!
...THAT'S WHY
60% OF THE LEADING
INDUSTRIES HAVE
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SIPCO
DUNKING STATIONS
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Cigars..Matches
IMMEDIATELY
EXTINGUISHED!
It's the discarded and forgotten cigar or cigarette that causes fires. Rid your plant of smoldering fire hazards by installing neat, attractive, *sure-out* SIPCO DUNKING STATIONS.
Placed at strategic locations throughout your plant, SIPCO DUNKING STATIONS are the practical, economical answer to your plant smoking problem. That's why scores of leading U. S. industries have installed them!
SIPCO DUNKING STATIONS are expressly designed for hard industrial use—and abuse; can be installed almost anywhere.
SMOKERS
GOOD HOUSEKEEPING
PREVENTS FIRES
PUT 'EM HERE
UNIT
NO. 2
(wall model)
UNIT
NO. 1
(42"high)
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MORE *built-in* PROTECTION!

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- MOISTURE-PROOF SQUEEZE-GRIP DISCHARGE NOZZLE
- STAINLESS STEEL PIN AND SLEEVE
- CO_2 PRESSURE INLET
- POWDER OUTLET
  Location of tube and construction of bottom assures 98% powder discharge.
- CONVEX BASE

Available in 5, 10, 20 and 30 Pound Models

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You get surer fire protection from Buffalo better-built extinguishers because there's more protection built-in! Highest engineering standards, exacting manufacture and precision inspection produce the finest extinguishers possible. Dealing with your Buffalo industrial distributor has many advantages. He carries a complete line of Buffalo *better-built* portable extinguishers, parts and recharges. Simply call him, one transaction, will answer your fire protection needs in a hurry. Call him now! He is listed in the yellow pages of your telephone directory!

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BUFFALO FIRE APPLIANCE
CORPORATION
DAYTON 1, OHIO

The President's Medal

Awards made by the National Safety Council for successful application of artificial respiration

GUY O. TEX, public school teacher, Indianapolis public schools, Indianapolis, Ind. — drowning.

WILLIAM D. HAGGERTY, electrical superintendent, Columbia River Constructors, Bridgeport, Wash. — electric shock. Certificate of Assistance to SAM V. MCCUE.

S. D. WATKINS, millwright helper, Tennessee Coal & Iron Div., United States Steel Corp., Birmingham, Ala. — drowning.

JAMES AULD, roller—20" mill, Republic Steel Corp., Canton, Ohio — drowning.

JOHN MAYPOLE, student, Oak Park, Ill. — drowning.

PIERRE M. PARENT, line foreman, The Shawinigan Water & Power Co., Trois-Rivieres, Que., Canada — electric shock.

DONNA COOPER, teacher, Akron Board of Education, Akron, Ohio — drowning.

DON JAMES, student, Yazoo City, Miss. — drowning.

CAPTAIN DONALD W. WERNER, United States Air Force, Headquarters, Air Materiel Force, Europe — lightning or head injury (could not be determined).

"Careful! Let's never forget what happened to Humpty Dumpty."

S-D Day

—From page 12

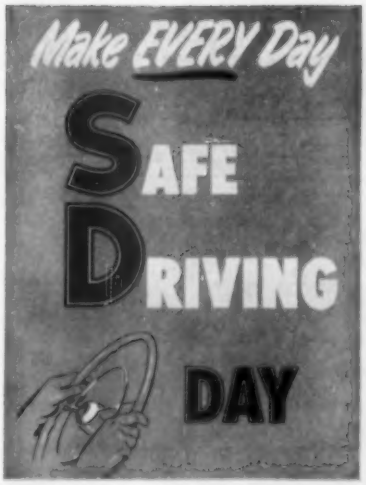
450 television stations and to about 3,000 radio stations.

Publicity releases were sent by the Council to more than 6,500 newspapers. A series of five releases was distributed to NSC chapters, local safety councils, and other agencies.

Early requests for materials were received from E. I. duPont de Nemours & Co., U. S. Rubber Company, Standard Oil Company (Indiana), Gulf Oil Company, General Motors Corporation, Remington-Rand, Mack Trucks, International Business Machines, Carbide & Carbon Chemical Corporation, Crown-Zellerbach, and Socony Mobil Oil Company.

Also received were requests from Navy shipyards, ordnance plants, the U. S. Forest Service, the Army, the Navy, the Air Force, the Marine Corps, and the Corps of Engineers.

Railroads, farm bureaus, insurance companies, public utilities,



truckers, universities and colleges, automobile manufacturers, associations, parts manufacturers and distributors, and agencies—all have lined up for all-out action to help assure the success of S-D Day.

The Advertising Council, in cooperation with the National Safety Council, has issued a series of seven 100-line ads to be run 10 days prior to and following December 1 and stressing the theme, "Make Every Day Safe Driving Day."

A series of one-column mats and/or proofs are also available. One is a reproduction of an NSC poster; four are special cartoons on S-D Day.

This massive public education program, designed to dramatize the importance of support by every individual, will give great stimulus to existing safety programs and foster year-around attention to the necessity for safe driving and safe walking.

Motorists and pedestrians will be urged on S-D Day to follow these basic safety principles:

1. Observe the letter and the spirit of all traffic regulations.

2. Be courteous to every driver and pedestrian — practice good sportsmanship.

3. Give full attention to driving and walking.

Should have used
the new, improved
SOL-SPEEDI-DRI!
• A "must" for SAFETY and GOOD PLANT HOUSEKEEPING!
• The most DUSTLESS oil and grease absorbent you can buy!
GET A FREE SAMPLE FROM
SPEEDI-DRI CORP.
Menlo Park, New Jersey

FOR LADDER
Safety
LADR-LEVL
FOR EXTENSION, A-FRAME AND STRAIGHT LADDERS
FULLY MECHANICAL
KEEP YOUR LADDERS ALWAYS LEVEL ON SLOPES, STEPS, IRREGULAR SURFACES
LEVELS INSTANTLY LOCKS AUTOMATICALLY
Manufactured by HB INDUSTRIES, INC.
1401 MIDDLE HARBOR ROAD • OAKLAND 20, CALIFORNIA • TELEPHONE GLENCOURT 2-1077

How much damage and down-time can this equipment save you?

Property damage and loss of production caused by a fire in your plant can be a serious blow to your business. And conventional fire-fighting methods often cause more damage than the fire itself. That's why John Bean Industrial Fire-Fighters, like the new "HH" High-Pressure Fog unit above, are such a good investment in plant and production protection.

Only John Bean Fire-Fighters give you the advantages of fighting fires with true high-pressure fog — and only this John Bean fog can kill fires so fast with so little water damage. Water, atomized by the high-pressure fog guns under a pump pressure of 800 lbs., has such instantaneous cooling, smothering and isolating effect on flames that they're knocked out with only 1/10th the water used under ordinary pressures.

The new "HH" model packs the performance of a full-size municipal fire truck into a compact, highly maneuverable unit only 135 inches long. A 48-inch width and a full-turn radius of less than 15 feet allow it to drive down factory aisles and turn sharp corners with ease. A 98 H.P. engine drives it at speeds up to 25 m.p.h. to get to fires fast — also powers the high pressure pump. Unit carries 200 gals of water which puts two fog lines into immediate action.

One-Gun Mobile Model

Skid-Mounted Model

Stationary Model

There's a complete line of John Bean mobile and stationary fire-fighters . . .

WRITE FOR CATALOG L-889 TODAY

JOHN fmc BEAN

Division of

FOOD MACHINERY AND CHEMICAL CORPORATION

DEPT. IF, LANSING 4, MICHIGAN

Radioactive Fallout

—From page 62

At present prices this should not be particularly expensive.

For areas in which the soil is rich in calcium, little will be accomplished by calcium addition, but the threshold fallout in these areas is much higher.

Certain crops would be denied to human consumption by this internal contamination more definitely than others. Beef is one extreme in being very insensitive. This is so because the radioactive strontium is deposited in the bones and is not present in significant amounts in the meat.

Milk and cheese, however, would more readily become inedible since they would possess a relatively high radiostrontium content because of their high normal calcium contents.

Vegetables would, in general, be questionable, their normal calcium contents being intermediate between meat and cheese. However, vegetables can be washed to remove external contamination due either to direct fallout or to blowing dust, and initial trials indicate that milk can be purified for radioactive strontium by a simple chemical procedure.

All of these protective measures need direct confirmation by test. Nothing but direct experiment will tell us the exact truth. The remarks I have made here are based largely on general physical principles and not on direct experimentation. We cannot imagine that the predictions of the very real effects of water washing, sweeping, calcium fertilization, etc., will be very wrong, but it would be far better to know this with some certainty.

Direct experiment *is* possible by using the minute fallout which occurs outside testing areas over most of the hemisphere whenever bombs are tested. Apparatus is available which will measure this tiny amount of material thousands of miles from the test sites, and the assumption is likely to be sound that the susceptibility of test fallout to decontamination measures will closely resemble

that of actual heavy fallout in case of attack.

A great deal could be learned by taking typical buildings, streets, and countryside, monitoring them for general fallout, and then subjecting them to various decontamination measures and remonitoring. Small as it is, the Geiger counter is a very sensitive instrument. Certainly prospectors in western United States, in the general vicinity of the test area, are aware of this fact. Although there is no appreciable hazard connected with tests, it is still possible to make measurements with sensitive instruments.

The approach suggested might utilize a mobile radiochemical laboratory, such as the one the United States exhibited at the recent Geneva Conference, to make radioactivity measurements, while local civil defense task forces could undertake decontamination measures. Special instrumentation capable of detecting radioactivity at particularly low levels would be necessary. All could be placed in the mobile laboratory and dispatched to the area selected.

A policy of experimental attack on the persistence of fallout questions and the testing of reasonable decontamination and protective measures will give everyone a better understanding of the problem, better judgment about unavoidable policy decisions, and help to interest people in protecting themselves against possible dangers.

State Cracks Down on Flammable Fabrics

ADVISING RETAILERS in the state to halt the sale of certain Japanese and Indian scarves which the Federal Trade Commission has found "so highly flammable as to be dangerous when worn by individuals," Industrial Commissioner Isador Lubin declared that the New York State Labor Department is actively enforcing the new State Flammable Fabrics Act.

The high flammability of these materials was confirmed by independent state investigation and tests.

"Our investigators are presently checking to ascertain which suppliers and retailers are now selling these scarves," Commissioner Lubin said. "In order to protect the public, we are vigorously enforcing the new act which became effective July 1."

The state act supplements Federal regulations in this field; it covers the intra-state manufacture and sale of dangerously flammable garments and garment material, an area not covered by Federal regulations.

The height of needless apology, says AT & T's *Long Lines*, was probably reached when a Flint, Mich., woman called the information operator for the number of the local drugstore. "I'm sorry to bother you," she said, "but the reason I'm asking you is that my house burned down and the directory with it."

sellstrom safeguard --of the Month

Spectacle Type
Plastic Frame
SAFETY GOGGLES

Now in Two Distinctive Colors!

BRONZE and GREEN — in addition to the popular FLESH color

Plastic Spectacle Goggles of cellulose acetate butyrate provide the utmost in eye protection. When equipped with plastic or hardened glass lenses, and side shields, if required, they are particularly suitable for many operations requiring eye protection. In addition to models for all job requirements, the choice of these attractive colors satisfies individual preferences. For complete eye safety and clear comfortable vision specify Sellstrom's lightweight, tough plastic frame goggles.

Models with comfortable molded or adjustable rocker type nose pads, fitted with any of three different temple styles, in a complete range of eye and bridge sizes. These features make them ideal for PRESCRIPTION GOGGLE Programs.

For complete information and prices write directly to Sellstrom Manufacturing Company, Palatine, Illinois, for brochure No. 32-F . . . OR request catalog No. 32 for information on Fibre Glass and Fibre Welding Helmets, Face Shields, Respirators and other Sellstrom safeguards.

Sold through better distributors everywhere

Sellstrom Manufacturing Co.

222 Hicks Road • PALATINE, ILLINOIS

Machine Tool Show

—*From page 39*

milled, planed, drilled, ground, and formed into souvenir ash trays, bottle openers, canes, cigarette cases, etc. and handed out to visitors. Chips and scrap were hauled away nightly and sold to help pay for the million dollar spectacle.

For those interested in automation, some of the new models displayed included:

—A machine for automobile assembly lines that will handle small parts four times as fast as humans do it now.

—A tool which makes it possible for precision gears to be machined and inspected without being touched by human hands.

—A vise, dubbed "the mechanical octopus," which can grip objects of any size or shape.

—A machine that drills eight holes simultaneously by means of an electrode cutting tool.

—A large power press with two speeds.

—Machines that spin flat pieces of cold metal into any desired shape.

This inclinable press features a clear plastic barrier guard which is easily fabricated, gives complete protection to the operator while permitting excellent visibility at the point of operation.

Trends in the industry since the 1947 show are:

—Machines are more flexible, able to do a wider variety of jobs than ever before.

—Machines are more accurate, faster, and more efficient.

—Machines today do more operations during one cycle.

—Using some of the machines, one operator can now do the work three men did 20 years ago.

—A machine that can find and correct its own and other machines' mistakes.

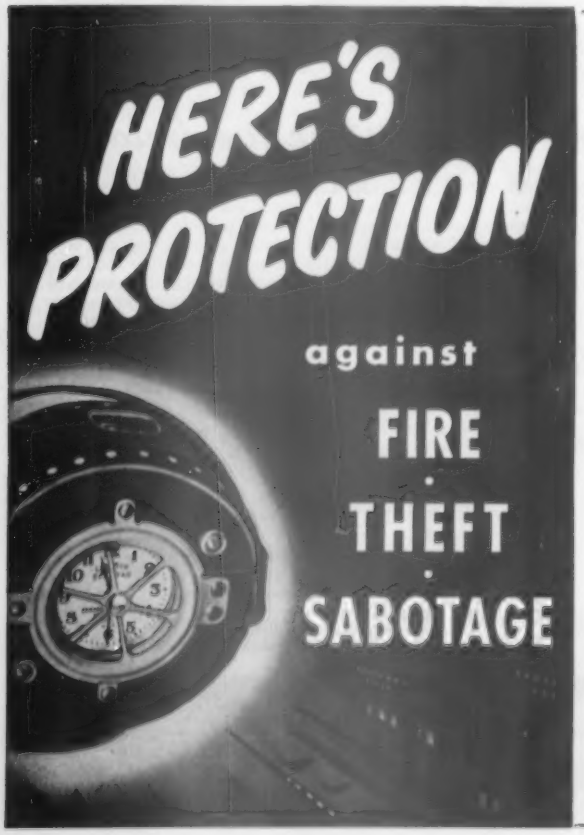
—A tremendous improvement in electrical equipment, motors, and controls.

Motorist: "How far is it to the next service station?"

Farmer: "Oh, about two miles as the crow flies."

Motorist: "Well, how far is it if the crow has to walk and roll a flat tire?"

Forgetting your wife's birthday isn't nearly as bad as remembering her age.



CHICAGO
Watchclock System

"The first . . . and still the first."

LOWERS YOUR INSURANCE RATES!

It keeps track of your watchman's tracks—so accurately and positively that the CHICAGO WATCHCLOCK System is approved by THE UNDERWRITERS' LABORATORIES and by THE FACTORY MUTUALS LABORATORIES. Users earn reduced insurance rates. Thus the CHICAGO WATCHCLOCK System quickly returns its small cost to you.

Write for FREE new folder that completely describes this simple, low-cost, tamper-proof system of extra protection to property. Write for it NOW!

CHICAGO WATCHCLOCK
DIV. GREAT LAKES INDUSTRIES, INC.
1524 S. WABASH AVE., CHICAGO 5, ILL.
OFFICES IN PRINCIPAL CITIES

PERSONALS

Heads ASA

J. L. CRANWELL, vice-president of the Pennsylvania Railroad Company, New York, has been elected president of the American Standards Association. He will fill the post left vacant by the death of Edward T. Gushée, vice president of the Detroit Edison Company. Mr. Cranwell became a member of the Board of Directors of the American Standards Association, representing the Association of American Railroads, in January 1953. He was elected vice-president of the Association on January 1, 1955.

He is an officer and director of several other railroads and companies affiliated with the Pennsylvania System, and is chairman of the Eastern Operating Committee of the Railway Express Agency.

George N. Thompson Retires from NBS

GEORGE N. THOMPSON, a national authority on building codes and safety, retired from the National Bureau of Standards June 30 after 31 years of outstanding service. Just prior to retirement, he received the Award of Merit from the American Society for Testing Materials for outstanding service to the Society.

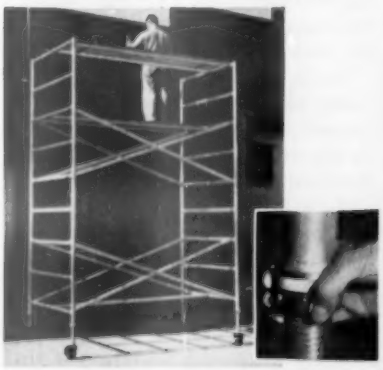
At the Bureau, Mr. Thompson was assistant chief of the Building Technology Division, and Chief of the Codes and Specifications Section. His interests were concentrated on the development of improved building construction standards, with particular emphasis on building, plumbing, and safety codes.

Mr. Thompson is an active participant in many organizations and has been chairman and vice chairman of numerous committees and sub-committees. He has served as chairman of the ASTM sub-committee charged with keeping the Standard Fire Test up to date; vice chairman of the Federal Fire Council, revising its *Manual of Fire Loss Prevention* and preparing its *Recommended Design Practices for Fire Safety in Federal Buildings.*

He has been a member and editorial advisor of the Coordinating Committee for a National Plumbing Code; participated in the organization and work of the Joint Committee on Building Codes; and served on the Panel of Consultants to the New York State Building Code Commission.

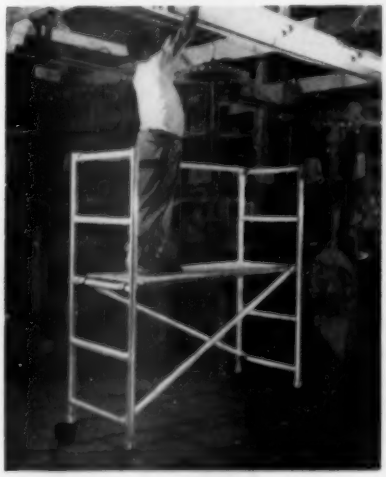
As chairman of the Building Code Correlating Committee of the American Standards Association (1944-1949) and vice chairman for eight years, Mr. Thompson helped supervise ASA committees preparing national standards in the building code field. He has also been chairman

Aluminum Scaffolds . . . by The Patent Scaffolding Co.



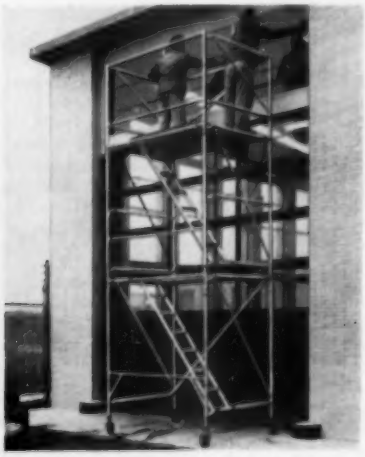
NEW 4'6"-WIDE LADDER SCAFFOLD

This 4'6"-wide aluminum ladder scaffold provides added stability and extra working room for painting, cleaning, relamping and general maintenance jobs. Base section is 6' high. Other heights are achieved by combining other ladder units of 4' and 5'4", and using 24" leg adjustment (inset). Leg adjustment (on all three Scaffolds) is built in and gives safe, positive height adjustment without lifting scaffold. Two quick turns raise or lower one full inch. Diagonal braces give 6', 8' or 10' spans. Smooth-rolling rubber-tired casters. Write The Patent Scaffolding Co., Inc., 38-21 12th St., Long Island City 1, N. Y., Dept. NSN.



2'-WIDE LADDER SCAFFOLD

Has same features as 4'6"-wide scaffold, but is only 2' wide. Ideal for maintenance work in narrow hallways and aisles. Rolls right through standard 30" doorway. Can be used with diagonal braces to give spans of 6', 8' or 10' platform. Compact—parts lie flat and take up little room. Write The Patent Scaffolding Co., Inc., 38-21 12th St., Long Island City 1, N. Y., Dept. NSN.



SCAFFOLD OPENS LIKE A BOOK

One man can erect the base section of the "Fold-A-Way"* Scaffold in less than a minute. End frames swing open sideways, while the base section is in a standing position, making an easily managed swing of about 90°. Adding additional 6' sections takes just a few minutes. Basic unit is 4'6" x 6' and is 7' high including rubber-tired casters. Ball bearing extension legs permits height adjustment up to 24". Approved by Underwriters Laboratories, Inc. For more information write The Patent Scaffolding Co., Inc., 38-21 12th St., Long Island City 1, N. Y., Dept. NSN. (*Trade Mark)

of the ASA Sectional Committee on Building Code Requirements for Minimum Design Loads in Buildings since its inception in 1938.

He is author or co-author of numerous articles which have appeared in national periodicals and several Bureau publications in the building code field.

In 1953, Mr. Thompson was made an honorary member of the Building Officials Conference of America. He also received the Gold Medal for Exceptional Service from the Department of Commerce "for rare and outstanding contributions in the development of performance and model building codes, in bringing to this nation higher standards of housing, safety, and uncounted savings by the elimination of unnecessary restriction."

Born in Norwell, Mass., in 1892, Mr. Thompson received his bachelor of arts degree from Harvard College in 1913. He served during World War I as a second lieutenant in the infantry.

HAROLD W. GILBERG has been appointed assistant superintendent, Safety and Welfare Department at Jones & Laughlin Steel Corporation's Aliquippa Works Division. He had been a safety inspector since February 16, 1947.

Mr. Gilberg succeeds Charles P. Vorhes, who earlier was appointed superintendent of safety and employment at J&L's Cleveland Works Division.

Mr. Gilberg joined J&L in October, 1945, as a clerk for the Aliquippa and Southern Railroad. Prior to his J&L service, he was employed at the American Bridge Company, Ambridge, in the Shipyard Hospital.

Handy Pump says:

"Pump liquid materials safely, efficiently, economically with BLACKMER HAND PUMPS"

Now you can get Blackmer quality in *both* rotary and piston type hand pumps

The same Blackmer quality control that has brought you high quality rotary pumps for dispensing, transferring and refueling jobs is built into the new Blackmer Flo-Master hand pump. The Blackmer name on any pump is your assurance of top performance.

The FLO-MASTER

liquid materials handling ®

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INDUSTRIAL, HAND AND TRUCK PUMPS, STRAINERS, PRESSURE CONTROL VALVES

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See Yellow pages for your local sales representative

Obituary

J. D. WHITTAL

J. D. WHITTAL, captain and administrative officer of the Washington State Patrol, and formerly a member of the staff of the National Safety Council, died September 7 in Tacoma, Wash., following an attack of phlebitis. He was 46.

He is survived by his widow, Avis, and a son, Peter, who returned from service with the Army in Formosa to attend the funeral. Burial was in Tacoma.

Jack Whittal became a member of the Washington State Patrol in 1938. He graduated from the Traffic Institute of Northwestern University in 1943, when a sergeant of the Patrol. From 1946 to 1949 he was a member of the staff of the National Safety Council, first serving as a field representative in the Traffic and Transportation Division, and later as secretary of the Committee on Tests for Intoxication, and secretary of the Police and Traffic Court Divisions of the Council.

He returned to the Washington State Patrol in 1949, resumed his rank of captain and became administrative officer. In 1951, he was granted a year's leave of absence from the Patrol to serve as assistant director of the N.U.T.I.

extension services. As head of this program, he served as consultant to graduates of the N.U.T.I. traffic police administration course and their chiefs on organizational and administrative matters. He also directed the preparation of the extension services' monthly publication *Traffic Digest*.

CARL PETERSON, M.D.

DR. CARL PETERSON, secretary of the Industrial Health Committee of the American Medical Association, died September 27 in Pardee Memorial Hospital, Hendersonville, N. C., from injuries received in a plane crash the day before.

The two-man crew of a private plane was killed when the craft crashed into a mountain near Asheville, N. C., and burned. Dr. Peterson, who was asleep in the rear of the plane, was thrown from the wreckage into a tree. Death was due to burns and internal injuries.

Dr. Peterson was on his way to a conference on medical care in the soft coal areas at Charleston, W. Va., sponsored by the American Medical Association and the United Mine Workers Retirement Fund. The meeting is reported to have been cancelled.

Dr. Peterson had been secretary of the Industrial Health Committee since 1938. He had been a member of the AMA staff since 1930 when he became a hospital inspector. Before that he was a general practitioner in Duluth, Minn. He was a 1927 graduate of the University of Minnesota.

Surviving are two daughters, Natalie, 20, a student at Wellesley College, and Judith, 18, a high school student. His wife, Barbara, died in 1950.

Dr. Peterson was a member of the Chicago Medical Society, Illinois State Medical Society, American Public Health Association, and the American Industrial Medical Association.

R. E. DONOVAN

ROBERT E. DONOVAN, manager of the Safety Division, Standard Oil Company of California, San Francisco, died September 27. He was stricken with a heart attack and died on the way to a hospital. He was 61.

A native of Reno, Mr. Donovan attended the University of Nevada and entered the service of the U. S. Bureau of Mines in 1919. While assigned to first aid and mine rescue work on the Pacific Coast he gave the Bureau's initial first aid course in the petroleum industry.

He joined Standard Oil Company of California as safety engineer in 1922 and became chief safety engineer the same year. In 1947 he was named head of the Safety Division.

Mr. Donovan was a member of the executive committee of the Petroleum Section, National Safety Council, for several years, serving as general chairman 1938-39. He was a member of the American Society of Safety Engineers and had been chairman of the accident prevention committee of the Marketing Division,

LOW COST way to make your factory

NOISE - SAFE

with Bemis TRANSWALL

Reduce Factory NOISE as much as 22 Decibels

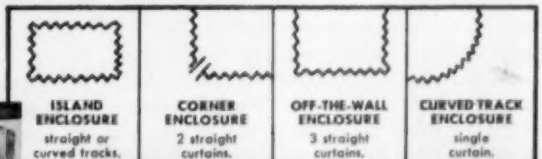
NOISE IS COSTLY . . . control it with TRANSWALL. Here's the new *low cost* sound barrier that isolates noisy areas *anywhere* in your factory, yet readily retracts for materials movement. TRANSWALL is flame resistive for safety.

TRANSWALL SOUND BARRIER INSTALLATIONS are custom engineered by qualified acoustical contractors. Some installations show direct reduction of 22 db in "open" and "closed" readings; even more in "before" and "after" readings. TRANSWALL is particularly effective in stopping higher frequencies.

TRANSWALL is easy to install. Nylon rollers support the curtain in overhead track. Layouts may be readily changed to suit new floor plans, yet noise reduction is great enough to make 95% of factory areas *noise-safe*.

A FEW TRANSWALL LAYOUTS . .

A TRANSWALL curtain 20 ft. wide retracts to only 2 ft.!



MAIL THIS COUPON TODAY!

BEMIS BRO. BAG COMPANY
610 So. 4th St., Minneapolis 15, Minn.

Gentlemen: Please rush me complete information on TRANSWALL, including actual Case Histories of *noise-safe* installations.

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American Petroleum Institute. He was a speaker at several National Safety Congresses and other meetings.

Surviving are his widow, May, and a son, Robert Jr., a petroleum engineer at Standard Oil of California's Taft headquarters.

CECIL L. HIGHTOWER

CECIL L. HIGHTOWER, former safety director and, since early this year, consultant on employee relations for the United Gas Companies, Shreveport, La., died August 26 in a fishing mishap at a private lake near Bethany, La. He was 53.

Survivors include his widow and two daughters.

A native of Navarro County, Tex., Mr. Hightower began with United Gas as a safety engineer in 1934 at Houston. In 1938 he was appointed safety director and transferred to Shreveport when the company's headquarters were moved there from Houston in 1940. He served as safety director until named consultant last January 25.

Mr. Hightower first entered the safety field in 1922 as a safety engineer for the Dallas Power and Light Company, an organization he later served as personnel director. He was employed for a period before joining United Gas as insurance and safety commissioner of the Texas Pacific Coal & Oil Company.

His professional work brought him membership in the board of directors of the Texas Safety Association, the Shreveport Chamber of Commerce Safety Committee, the Gulf Coast and the Ark-La-Tex chapters of the American Society of Safety Engineers and the accident prevention committee of the American Gas Association. He was a former president of the Caddo-Bossier Safety Council and the Louisiana Safety Association.

Mr. Hightower was the author of numerous articles on safety and a book on the subject that was distributed throughout the United States, Canada, and Cuba. He was the first editor of *United Gas Log*.

A recognized leader in Shreveport civic affairs, he held many positions including the presidency of the Mid-City Kiwanis Club, head of the Louisiana Heart Fund campaign, chairmanship of the Louisiana Advisory Committee on Conservation of Manpower in defense industries, and served for two years as director of the Caddo-Bossier Civil Defense organization.

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SAFETY ENGINEER WANTED

Previous safety experience in machine shop production operations. Approximately five years experience as a safety engineer preferred. Permanent position, salary. Send resume to Box 410, NATIONAL SAFETY NEWS.

Congress Quotes

—From page 50

3. Production efficiency increased from 86 per cent in the first year of the color program to 96 per cent in the last.

There is growing evidence that application of the principles of this science in the painting of factories and workrooms can result in increased production, greater efficiency and improved morale with a consequent reduction in absenteeism and work injuries.

—Thomas R. Donoghue, Safety Manager, Pittsburgh Plate Glass Co. (Cement and Quarry)

Fire Losses in the Chemical Industry

Last year the chemical industry had one of its most disastrous years from fire. There were 75 fires in 1954 in all types of industrial plants, each with a loss of $250,000 or more. Of these, 10 occurred in chemical plants and the average loss in each was $791,350. This was the highest average for any industry.

Certain elements for the prevention of fires should be given close attention. Among these are plant design, tank design, emergency procedures, and establishment in advance of mutual aid plans with nearby industries.

—Miles E. Woodworth, Field Engineer, National Fire Protection Assn. (Chemical)

Seven-Part Program

Seven elements are necessary for success in an industrial safety program:

1. Top management must take an active, responsible part.

2. Leadership with some individual in charge.

3. Engineering to maintain safe working conditions.

4. Safe practices must be established through training of supervisors and employees.

5. An accident record system must be kept to evaluate and measure progress in safety.

6. A system of medical placement examinations must be established as well as first aid for treatment of injuries.

7. Safety promotional activities should be used to promote acceptance of the safety program and a feeling of personal responsibility in employees.

—George W. Harper, Associate Professor of Mechanical Engineering, University of Illinois. (Printing and Publishing)

The Life of a Fireman

Even a kitty up a tree presents a hazard that firemen are trained to cope with. It's part of the rigorous safety training firemen must undergo.

The life of a fireman is replete with hazards. His exposure to traffic hazards while enroute to the scene of an alarm, exposure to smoke with its disabling carbon monoxide and other dangerous gases, working at precarious heights on buildings and ladders, exposure to flying glass, collapse of walls and floors can hardly be

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classified as being a safe vocation.

Even freeing a "treed" animal has its hazards. The animal's sharp claws may inflict painful hand wounds unless proper gloves are worn.

—James R. Moher, Deputy Chief, Bureau of Instruction and Training, Milwaukee Fire Department. (Public Employee)

Start the Day Right

There would be fewer accidents if people would get up 15 minutes earlier and begin the day by "calming their nerves, quieting their fears and disarming the soul."

1. Get out of bed slowly. Scrambling out of bed is like starting a car in high gear. It throws a strain on your motor (the heart) and the entire chassis (the body).

2. Eat a sane breakfast. Grabbing a cup of coffee on the run throws your entire digestive apparatus out of gear and creates tensions before the day is under way.

3. Play it safe. Start your day right by allowing an extra 10 or 15 minutes. You'll feel better and other people will seem better to you. In addition, you'll have the sensation of having extra time for the whole day.

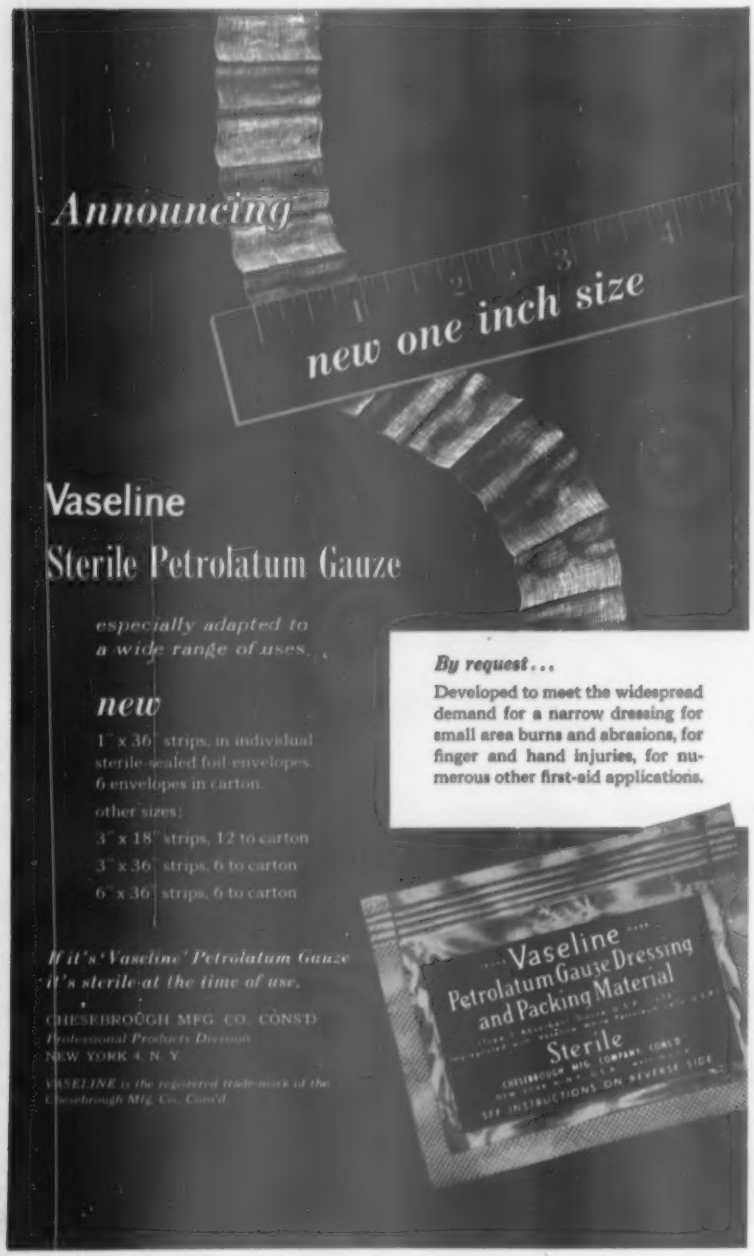
4. Keep your eyes on a star if you so desire, but keep your feet on the ground. When your mind wanders, you're more apt to walk into a tree, slip on a banana peel or fall off a ladder.

5. Watch the little annoyances. It's the day-by-day trivia that saps your energy.

6. Silence saves strength for command of the job at hand. Focus your conversation; don't scatter it. Many an argument is just plain noise.

It makes no difference whether you're talking about industrial safety, home safety or traffic safety. All safety depends upon attitude of mind.

—Carl C. Byers, Superintendent of Schools, Parma, Ohio. (School and College)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Safety on the Campus

This may be the age of specialization, but not for safety directors of U. S. colleges and universities.

As our laboratories work more and more with atomic energy and other advanced technological developments, the hazards increase tremendously and call for more ingenuity on the part of safety departments.

The college safety director is expected to have a basic knowledge of physics, chemistry, airport operation, traffic control, machine shop practices, and related fields. He must be something of a psychologist, a star salesman, a progressive educator and, finally, a good administrator.

—L. J. Freehafer, Business Manager, Purdue University. (School and College)

Lines of Communication

Don't get your signals crossed if you want a safe industrial operation, particularly if more than one company is involved.

In our own company, it became apparent that real improvement

was not possible without coordination between the parent company and any others it might employ for particular jobs. Discussions preliminary to starting a job were held. The company's rules for safety were carefully explained.

We find that when everyone understands how a job is to be performed, there is slight danger of an accident occurring during the course of a job.

—*A. J. Willis, District Superintendent, Western Kansas District, Phillips Petroleum Co. (Petroleum)*

An Ear to the Ground

The suggestion system is a practical means of getting employee participation in the safety program.

A "safety observer" program in effect at Universal Atlas Cement Company has brought in more than 487 worth-while safety observations or recommendations since the program was started in 1952. Employee interest is still growing.

The "safety observer" program is definitely beneficial to the company. It places a ready and listening ear of management close to a source of worth-while suggestions —the man on the job.

—*A. H. Adams, Plant Manager, Universal Atlas Cement Co., Buffington, Ind. (Cement and Quarry)*

The Public in Your Classroom

The effectiveness of the high school driver education program is determined just as much by the adults out of the classes as the youths in them.

The public is in your classroom. You have their attitude and behavior to contend with as well as that of your students.

Students apply what they learn in an adult world. However, proper driving habits won't work as long as adults persist in two major bad attitudes. The first is that courtesy is something you leave at home. The second is that traffic laws apply only when a policeman is in sight.

In my experience, women make the best audience for traffic safety talks. They are interested in the subject and they behave as if they know it applies to them, which is more than I can say for their husbands.

One of the most difficult attitudes to overcome in adults is that traffic safety applies to "the other guy." Practically all drivers have had accidents at one time or another and everyone is a fit subject for efforts to prevent accidents. Only a small portion of drivers, perhaps less than one per cent, are permanently accident prone.

Some say nothing can be done with adult drivers and that our only hope is with the youth. I say we will have little reason to hope for the youth unless we do something about adults, too. Whether you want them to be or not, they are also in your classroom.

—*Nils A. Lofgren, Director of Field Services, Citizens Traffic Safety Board of Chicago. (School and College)*

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dairy animals, poultry, and meat animals being prepared for slaughter. The Food and Drug Administration has established a tolerance of 0.3 parts per million under the Federal Food, Drug and Cosmetic Act the limits on the amount of chlordane which may appear on or in specified fruits and vegetables.

Chlordane also is not accepted as a space spray against flying insects. As a residual application against ants, flies, mosquitos, roaches and certain other household insects it should be limited to spot treatment of selected surfaces as around the baseboards, doors and windows because the slow liberation of vapor from treated surfaces, especially enclosed heated rooms, might constitute a danger to persons continuously exposed.

The toxic action of chlordane is generally like that of the other chlorinated hydrocarbon insecticides. It is a little difficult to assess precisely what the effects may be because the material available is a mixture and not a pure substance.

It appears to be absorbed into the body from the skin, lungs, stomach, and intestines. Exact information is lacking as to the rate of absorption but it would appear that the volatile nature of the material would lead to more rapid absorption as in the case with other less volatile chlorinated insecticides.

When taken by mouth the chronic toxicity to rats has been variously reported from approximately one-half to twice the chronic toxicity of DDT. The more recent production appears to have the lower chronic toxicity. There is no information about chronic oral toxicity, for humans. One reported suicide indicates that acutely 100 milligrams, approximately, per kilogram of body weight has killed an adult.

Chlordane is an oily liquid which is readily absorbed through the unbroken skin so that the toxicity by skin application is substantially larger than that of DDT. The hazard from skin application is sufficient that it was not acceptable for formulation into louse powders for the armed forces and is sufficient that it should not be used in materials which will come into frequent contact with the skin.

In acute poisoning of humans the effects are similar to those seen in experimental animals. Irritation of the lungs and the gastro-intestinal tract and irritation and hemorrage of various organs have been reported. Signs of acute poisoning usually appear within 45 minutes and death may occur within 24 hours or may be delayed for several days.

The symptoms are similar to those of other chlorinated hydrocarbon insecticides — irritability, salivation, heavy breathing, muscular tremors, convulsions, nausea, vomiting, diarrhea and severe abdominal pain have all been observed in humans. Fifteen cases of human poisoning with five deaths have now been reported.

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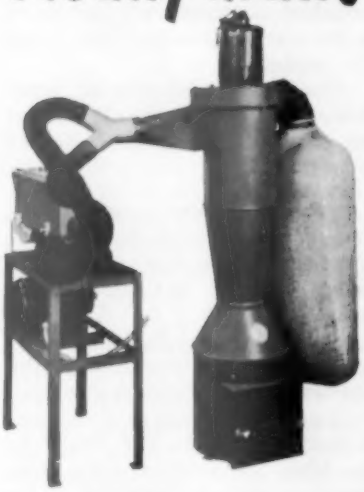

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The Six Be's

—From page 19

the controls and their effectiveness. For example:

—The fire department could enforce the elimination of fire hazards.

—Building codes could more adequately bring about fewer hazards.

—Home designers and architects could all but eliminate physical hazards in the home.

—Public health departments are taking an increasing interest in home safety.

—The education department is potentially among the most important agencies through the regular program of safety education and special courses for adults.

—All types of communication can have a tremendous impact on the problem — newspapers, magazines, radio, television, motion pictures, and advertising in all its many forms.

—Corporations are beginning to help through off-the-job safety for employees and their families.

—Organized labor is another important agency.

—Women's organizations are natural supporters.

—Youth organizations such as 4-H clubs, Future Farmers of America, Boy Scouts, Girl Scouts, Camp Fire Girls, and many others can play an important part in home safety.

It seems obvious that local safety organizations are the logical agencies to harness these great potentials and to coordinate their work. This is the most effective way to realize aggressive responsibility.

3. *Be factually responsible.* One of the valuable lessons I learned early in my adult life was that "you can't do business on rumors." As long as there are people there will be rumors — rumors about accidents and accident prevention as in all other aspects of human living.

When the first President's Occupational Safety Conference, held in 1948, was in the planning stage there were rumors to the effect that the United States Labor Department intended to nationalize all safety work in American industry, that the Conference was designed to advance the President's political fortunes, that organized labor was making a strategic move to corner the safety market, and that the Con-

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ference would mark the beginning of the end of the National Safety Council.

These rumors were, of course, quite groundless, but they threatened to thwart the ideal of those who had dreamed about and worked for harmonious cooperation among all groups which had an important stake in promoting safety throughout the country's business and industry.

There is always the danger that rumors, widely and persistently repeated, will grow into beliefs and consequently affect behavior. This can lead to harmful action. An illustration can be found right now in the controversy over the importance of speed as a cause of traffic accidents. Some say speed is first in importance. Others, while admitting its importance, question its primary importance. There are many known facts, but obviously they are not conclusive. What we sorely need is more information and less innuendo.

The point need not be belabored. It seems self evident that all of us should be factually responsible.

4. *Be educationally responsible.* You and each of your fellow Americans can meet this challenge by your individual influence.

America's schools, public and private, are the locations for the human interest and drama that will eventually capture the imagination of the American public. In so doing the accident prevention problem will be reduced to its proper minimum.

There are two general reasons for this prediction. (1) The school population, our boys and girls, our young men and women, are actually the best teachers of their parents and (2), more importantly, these youth from nursery school through college are the folks who in the next generation or two will decide the kind of life to live.

That is a long term proposition. Meanwhile, there are many, many ways to be educationally responsible. The training programs already tested in progressive business and industry, and elsewhere, can be extended. High

THE MAN WHO FEELS SAFE

school driver education cannot only be made universal in practice, but can be extended to all adults who are applicants for licenses to operate a motor vehicle. Farm people can extend their present program to those not presently conscious of the importance of accident prevention. Housewives can be organized into discussion and study groups. Architects, designers, interior decorators, attorneys, clergymen, entertainers, and all other groups can be indoctrinated regarding the economic and social importance of safety.

5. *Be technically responsible.* The term "technical" is not here used in any narrow sense. This is not a plea to 168,000,000 people each to be a technical safety expert. Rather it is a plea that each of us, as worthy American citizens, accept some responsibility for seeing that technical requirements are met. The plea covers technical safety in every area of human activity.

Management must provide safe work conditions, suitable guards, and a safety program. Public officials must be held responsible for high standards of traffic engineering and enforcement. Manufacturers must be held responsible for incorporating every practicable safety device in the design and construction of machinery and motor cars. Educational agencies must be held responsible for correct attitudes, superior skills, adequate streets and highways on discharging their public obligations.

These are only a few areas of "technical responsibility." The point is that we must all accept such responsibility. Without it each of us is utterly powerless to protect himself, no matter how "careful" he may be.

The case for social, aggressive, factual, educational and technical responsibility has been stated. These can be considered an analysis of our theme for this 43rd National Safety Congress and Exposition. So this dissertation is concluded by stating that theme as point number six!

6. *Be your brother's keeper—stop accidents!*

Wire from Washington

—From page 54

hours worked, as compared with another low of 11.5 for employees of private manufacturing plants. The statistics are: 37,974 disabling injuries in 1954, a reduction of 1,982 from 1953; and 191 job-connected deaths, a reduction of 22 from the previous year.

The reduction in injuries and deaths resulted in direct cost savings of over $100,000 in workmen's compensation awards and medical care. The Federal Safety Council, which is composed of representatives of each Federal department and agency, is housed in the Labor Department; it operates through 95 field councils throughout the various states, possessions, and territories.

Supreme Court. The new term of the Supreme Court has reconvened, and of the many cases which will be considered by the court in the months ahead, some have important safety implications. Among these are (1) a case from California involving the constitutionality of a conviction for drunken driving, based on evidence from a blood sample

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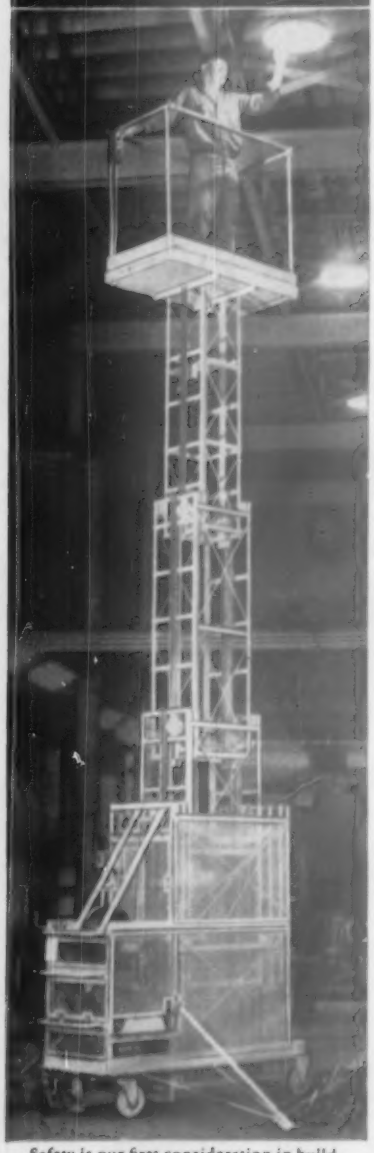

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allegedly taken by the police from the driver's body against his will and over his protest; (2) an issue as to the liability of the United States Government for damages to a vessel's cargo arising from an allegedly negligent failure of a Coast Guard lighthouse to operate, and (3) the determination of the applicability of the Federal Safety Appliance Act to the construction of certain types of railroad tank cars.

Landry Heads ASSE

Edward B. Landry

Newly-elected officers and executive committee members-at-large of the American Society of Safety Engineers took office during the Society's Annual Meeting, held in Chicago during National Safety Congress week. Those elected are:

President—Edward B. Landry, director of safety and health, United States Post Office Department, Washington, D. C. Mr. Landry has been actively engaged in safety engineering for industry and agencies of the federal government for more than 26 years. He has been a member of ASSE since 1932 and is a member of the Industrial Conference of the National Safety Council.

First Vice-President—Henry B. Duffus, administrator, Accident Prevention, Westinghouse Electric Corporation.

Second Vice-President—John F. Juli, safety manager, Consolidated Western Steel Division, United States Steel Corporation.

Secretary—J. B. Johnson, re-elected.

Treasurer—George F. Nuernberger, safety engineer, A. B. Dick Company, Chicago. Re-elected.

Members-at-large (three-year terms, ending 1958)—Robert L. Carruthers, supervisor, Safety and Training, Shell Pipe Line Corporation; H. W. Heinrich, superintendent, Engineering and Loss Control Division, Travelers Insurance Company, and Fred H. Kobely, manager of safety and training, Columbia-Geneva Steel Division, United States Steel Corporation.

"The slammed-down brake, the jack-rabbit start, the tires that squeal on a turn because the car is going too fast or has swung too wide . . . the impatient blasting of the horn—these are sure symptoms of an inexpert driver." —Charlotte Montgomery in *Handbook for the Woman Driver.*

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What's Cookin'

—*From page 57*

has been an active worker for the San Joaquin County Safety Council in Stockton. She came to California in 1943 to serve as assistant safety director for the Stockton Ordnance Depot and safety director of the Benicia Arsenal. National President William N. Cox, Jr., conducted the installation ceremonies.

Safety Educator Named

The Massachusetts Safety Council has announced the appointment of Kenneth E. Brown as Director of Safety Education. He will direct the child safety program, bicycle safety clinics, pedestrian accident prevention, and driver education projects under the supervision of Bert Harmon, Massachusetts Safety Council director of activities. Mr. Harmon takes on new duties to assist Manager Bruce Campbell with highway safety programs and to expand the Council's industrial programs.

Mr. Brown was formerly on the executive staff of Jordan Marsh Company, and is now completing work for a master of education degree at Boston University. A background of teaching and children's activities will be of great value to his work at the council. He has made an intensive study of safety teaching methods and safety education programs.

Convair Rolls Up Record

A new post-war safety record was made at Convair's San Diego plant recently, a record of 66 days without a lost-time accident. This represented a total of 7,727,214 injury-free man-hours. The record started on June 17. The best previous records at the big Convair San Diego operations were 43 days, also rolled up during 1955, and 59 straight days without any lost-time injuries in 1954. The recent record made possible the addition of the sixth star to Convair's NSC pennant.

Eastbay "Women's Workshop"

The First Annual Safety Workshop, sponsored by the Women's Division of the Eastbay Chapter, NSC, designed to provide essential safety information and programs for women's groups, was held September 27 at New Sailboat House, Lake Merritt, Oakland. Each of the nine presentations offered to the group of some 100 ladies present was a capsule description of a practical full-length program that could be sponsored successfully by any women's group. The Women's Division is making an effort to stimulate every women's organization in the Eastbay area to undertake at least one safety program each year.

Subjects included safety legislation, home safety, traffic, school safety patrols, driver education, fire protection, civil defense, general school safety, and the National Safety Council's work in all of those fields given by Art Rude of the San Francisco office. Mrs. Donald A. Pearce, chairman of the Eastbay Chapter's Women's Division, presided and Judge

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"Luminum-Line"
ADJUSTABLE
HAND TOOL HOLDER
Keep precious fingers safe from off-angle hammer blows. Just place the hand tool in the holder and hammer away—with greatest possible safety. Three sizes available for tools ⅛" to 1¼" square.
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DUAL DL LITE

NICKLE CADMIUM BATTERY

EMERGENCY LIGHTING

. . . guaranteed 10 YEARS!

MODEL CH-25 6 VOLTS SYSTEMS 115V 60 CYCLES

— automatic trickle or manual charger.
— automatic switching.
— voltmeter and switch for testing.
— battery rated 30 amps or glass jar rated 25 amps.

DUAL LITE Nickle CADMIUM BATTERY SYSTEMS have a life expectancy of 15 to 20 years. Mean instant, automatic light when and where needed.
COMPARE: Long life — high performance — low maintenance — steel construction — can't disintegrate — constant capacity — 10 year shelf life — low internal resistance — non-poisonous fumes — not affected by short circuits — immune to freezing — gas free at discharge — resists shock and vibration.

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AIR OPERATED

LITTELL units

- SAVE MONEY
- SAVE FINGERS
- SAVE HANDS
- SAVE TIME

WITH dependable air operated safety units by Littell

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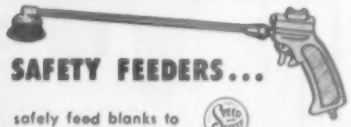


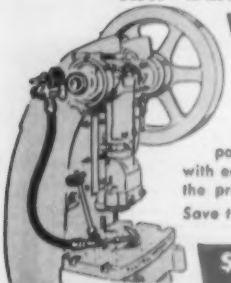
SAFETY FEEDERS...

safely feed blanks to press from the safe distance of 14 inches —BY AIR!

Save those fingers.

$35.00

AIR BLAST VALVES...



eject parts safely with each stroke of the press — BY AIR!

Save those hands.

$29.00

NEWEST LITTELL UNIT

SHEET LIFTERS..

handle sheets of steel glass, plywood, boxes, cabinets, etc. Safely —

Save those Insurance Premiums.

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4165 RAVENSWOOD AVENUE
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Write for FREE Catalog

William J. McGuiness, president of the chapter, was luncheon speaker.

New Conference Announced

The First Tri-Annual Genesee Valley Safety Conference and Exposition will be held in Rochester, N. Y., May 22-24, 1956, and is expected to be a major event in this important industrial area.

Sponsored jointly by the Genesee Valley Chapter, ASSE; the Rochester Safety Council of the Chamber of Commerce, and the Industrial Management Council of Rochester, the Conference will provide for the diversified industrial and business interests of the area. The program will feature nationally-recognized experts in the various aspects of accident prevention.

Noise and Accidents

"Industrial Noise" was the theme of the September 12 joint meeting of the Society of Safety Engineers of Sacramento, Calif., and the Industrial Section of the San Joaquin County Safety Council. A large audience heard Gil Rodier, of Industrial Indemnity Company, discuss the importance of nerve-wracking industrial "din" as a factor in accident causation.

Sign on a florist's delivery truck: "Drive carefully or the next load may be yours."—*Rolf Felstad, Minneapolis Tribune.*

"That new scout certainly blazes a nice trail."

Diary

—From page 42

od that is more foolproof and cuts costs 20 per cent. Come up to the plant someday and I'll show you."

Before Jim could counter, Harry turned on me. "Boss, you asked about the induction training program you introduced years ago. I went over it with a fine-tooth comb last month, and we've scrapped it. I've shoved the whole program right back in the Training Department's lap and the foremen's lap.

"I don't lift a hand—except in review of training materials—with the new men. But I've got a piece in the specialized training of all young hands being groomed for specialized assignment after they've been in the plant long enough to get oriented. I'm out from under a heavy burden of teaching labor at the kindergarten level, telling newcomers what any instructor can tell them. My assistants and I step in only when a man's been around long enough to be able to understand the value of more detailed instruction."

I sounded off then, loudly. It had been a long, weary battle to get safety represented in induction training, and it hurt to hear that that strategic position had been abandoned.

Jim came in with the point that perhaps I had been right to concentrate on new-employee training at a primitive stage of the safety program, but that Harry was probably right under present conditions to consider it a routine to be handled by ordinary training procedures, and to concentrate on advanced training.

On the other hand, Jim let fly a counter-blast at Harry on the budget question, arguing that a safety man's conscience had to be flint hard in sticking to the demand for adequate financing of the whole program as he saw it.

"If they turn you down," said Harry, "then it's their own fool fault, and you can come back in a year and point to what the neglect cost 'em. If you crawfish at the start, then you've failed your employers—and maybe killed some men."

The evening went like that, round and round on the Jackson-Barnes set-up, considering what of our old program was sound, and what was not, and always disagreeing on the latter.

But somewhere along the way, I suddenly stopped being angry, stopped feeling like a hurt kid because Harry had seen fit to change my policies. I began to see something I hadn't seen before. I began to see in the boys across the table not two rather stubborn and disrespectful upstarts. I began to see in them two men, grown men, strong men.

I dropped out of the argument and watched them and listened. They didn't notice that I had become a bystander, for the argument had gotten around to the wisdom and non-wisdom of a universal goggle rule, and that produced as fine a display of verbal fireworks as I've heard in a long time. I began to wish I had a tape recorder, because the debate would have made a fine program for the section at next year's Congress.

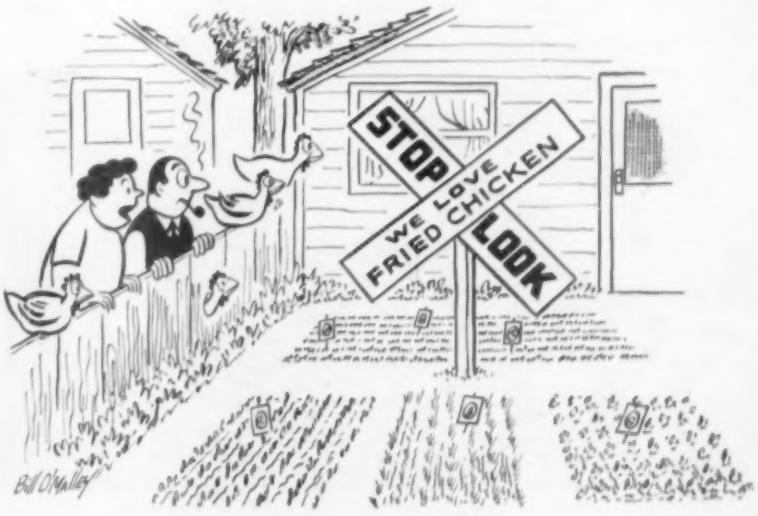
Something else began to dawn on me as I watched and listened. These were two strong men, temperamentally different from each other and each of them different from me. Jim was tough, stubborn, authoritative, conservative, imbued with a love of order and rule, fiercely honest, uncompromising, a sound man technically, and almost completely unimaginative.

And Harry, the quick-minded guy, with a sharp eye for the economical short-cut, with a flare for the dramatic presentation (this was new; I must have squelched it all those years we worked together), the dedicated safety man who was willing to use any device of office politics, trading the short-run advantage for the long-run gain.

And yet, in both of them, there were elements of me. Jim had my trick of the one-two-three summarization of a knotty problem. Harry, when he talked politics, used my language of punishment and reward motivation. Jim's technical conservatism was a mirror of mine. Harry's restless experimentation on the human side was also a reflection of mine.

And so, I let them talk, with the happy feeling mounting inside me that, whatever else I might or might not accomplish in a lifetime of safety work, I could claim some credit in the shaping of two strong men who would be doing the job long after my retirement.

They're my boys—stubborn, cocky, willful, opinionated. They are, I suppose, precisely the kind of men I would choose and shape, not into my own image, but into the image of the various kinds of a safety man that, in my heart, I wanted to be.



"Our new neighbor is with the railroad."

For a More Successful Poster Program

POSTER program aids miniatured on this and the following pages are NEW — shown here for the first time. Those illustrated in one color on the following two pages are actually printed in two or more colors.

For maximum variety, refer to the 1955 Directory of Occupational Safety Posters. There you'll find 744 top-notch selections on a great variety of subjects. Additional copies of the directory are 50 cents each—write Membership Service, N.S.C.

JUMBO POSTER for JANUARY 1956

The Jumbo poster, issued monthly, is designed for outdoor use and is available to members on annual subscription but is not stocked. Its actual size is 9' 11" by 11' 8".

SAFETY BANNER FOR JANUARY, 1956

Here is the attention-getting, monthly cloth banner. Available in two types—indoor and outdoor—both are identical in size (10 feet long by 40 inches high), have the same general message and multi-colored design. Indoor type is of sturdy drill with grommets for easy hanging, while the outdoor banner is of extra heavy drill, with wind vents, and has strong stitched-in rope for durability.

NATIONAL SAFETY COUNCIL

0615-A 8½x11½

This new four color poster is illustrative of the 72 four color posters shown in the 1955 Poster Directory.

Posters below are printed in two or more colors

(Available only in sizes indicated)

NATIONAL SAFETY COUNCIL

0633-C **25x38**

NATIONAL SAFETY COUNCIL

0585-B **17x23**

NATIONAL SAFETY COUNCIL

0541-A **8½x11½**

NATIONAL SAFETY COUNCIL

0560-A **8½x11½**

NATIONAL SAFETY COUNCIL

0591-B **17x23**

NATIONAL SAFETY COUNCIL

0403-A **8½x11½**

NATIONAL SAFETY COUNCIL

0627-B **17x23**

NATIONAL SAFETY COUNCIL

0572-B **17x23**

NATIONAL SAFETY COUNCIL

0543-A **8½x11½**

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.

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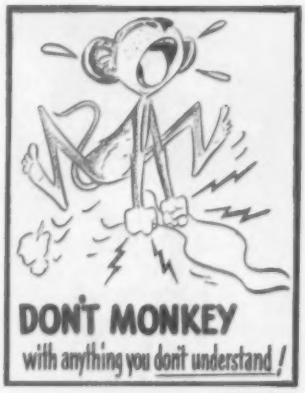
NATIONAL SAFETY COUNCIL

0595-A 8½x11½

NATIONAL SAFETY COUNCIL

0632-A 8½x11½



NATIONAL SAFETY COUNCIL

0497-A 8½x11½

NATIONAL SAFETY COUNCIL

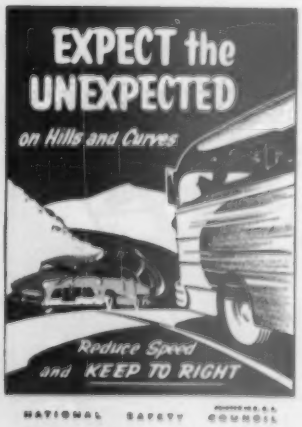
T-0601-B 17x23

NATIONAL SAFETY COUNCIL

T-0032-C 25x38
T-0609-A 8½x11½

NATIONAL SAFETY COUNCIL

V-0629-B 17x23



NATIONAL SAFETY COUNCIL

V-0612-A 8½x11½

NATIONAL SAFETY COUNCIL

V-0613-B 17x23

NATIONAL SAFETY COUNCIL

V-0611-A 8½x11½

Electrotypes of payroll inserts can be furnished in all poster illustrations shown above.

Junior's Chemistry Set

—*From page 86*

taneously when stored in a moist place. Moisture picked up from the air combines with the materials to form sulphuric acid, causing release of explosive chlorine dioxide gas which may decompose violently enough to set off the entire mass. Sodium chlorate, which has a tendency to absorb moisture, is more dangerous in this respect than the potassium salt.

Thus goes the story of potassium chlorate. There is little likelihood of any change in the nature of this compound in spite of the regularity with which new geniuses arrive on the scene with secret methods of controlling it.

One man not long ago presumed that certain organic liquid would desensitize chlorate mixtures because it desensitized certain explosives. Actually, the liquid caused greater sensitivity in some chlorate mixtures. A small sample of pure potassium chlorate was moistened with the liquid, and, when tapped with a hammer, exploded with a bang.

That should be expected with any combustible liquid. Oil is particularly bad. Two cases are recorded of explosions that occurred during the crushing of potassium perchlorate due to mixing with grease near machine bearings.

There are useful applications for chlorates, but they require careful handling and control. Sodium chlorate is used as a weed killer and cotton plant defoliant and it also has uses in the textile, paper pulp, and metallurgical industries.

Potassium chlorate is still used in some ammunition primers by the Army because of its certainty of functioning. It is also used commercially in match mixtures as well as in railroad torpedoes, fireworks, military signal smokes, and in dye manufacturing.

Chlorine dioxide, a relative of the chlorates, is also explosive in gaseous, liquid, or solid form. It is made in some paper mills from sodium chlorate but usually is made from sodium chlorite. It forms explosive mixtures with organic matter and combustibles. In contact with mercury it is liable to explode. It is another material the amateur chemist should avoid.

Publicity given to accidents with chlorates in industry, in laboratories, and in the homes of amateur chemists has never been appreciably successful in discouraging the parade of experimenters. In fact, it appears that the intriguing appeal of concocting exciting formulations is sharpened by the indifferent manner in which the potential violence of chlorate mixtures is usually reported. Parents who believe boys will be boys and will not cause too much harm with their chemistry sets should do an about face at once.

Examine that chemistry set! If you find chlorate in it, wash it down the sink.

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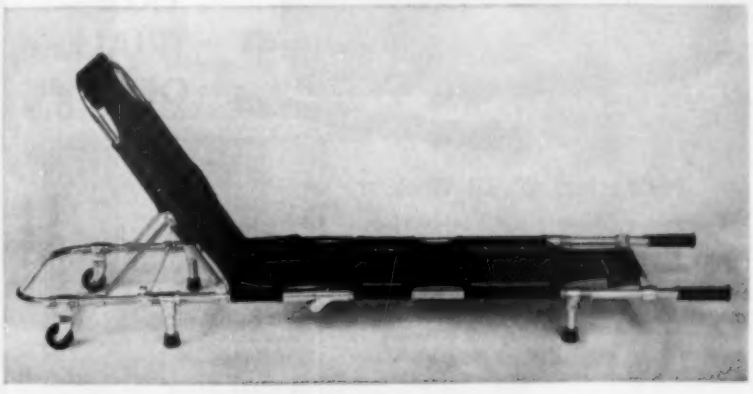
AND A COMPLETE LINE OF AMBULANCE COTS. *We Manufacture All Kinds.*

WASHINGTON

Greatest Name in Cots

COT & STRETCHER EQUIPMENT TO FIT ANY VEHICLE.

OR FOR ANY FIRST AID ROOM REQUIREMENTS.



Let WASHINGTON's progressiveness and reputation for 'finer' equipment be your guide in buying the BEST.

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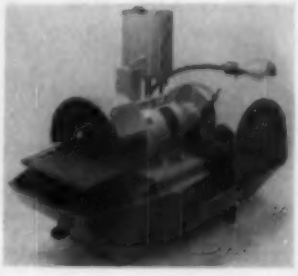
WASHINGTON PRODUCTS CO.

238 SO. FAYETTE ST. — WASHINGTON C. H., OHIO

SAFE TOOL GRINDING

with "Coolant-thru-the-wheel" that directs the chips and ground particles into coolant base. If in doubt arrange for demonstration. Feel the tool its "Cool." On the market since 1946. Sharpens Carbide, Hi-Speed Tools or general grinding. Both CUP and Straight Wheels on grinder. Wheels to 325 grain available at standard prices. Fine wheels grind keener edges that last longer.



Send for No. 2 Grinder circular

SCHEER CO., Box 531, Statesville; N. C.

Exhaust Purifier

—From page 70

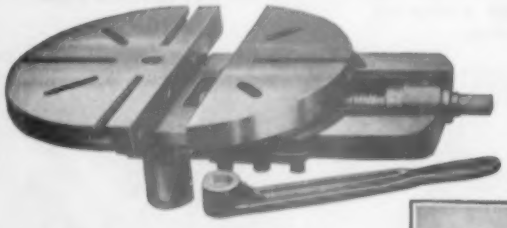
tinuous panelboard indication of catalyst efficiency and engine performance.

The dial on this panelboard indicator can point to any one of three zones—*active*, indicating the catalyst is cleaning up a high percentage of contaminants; *part active*, indicating less than rated clean-up, the catalyst may be losing activity, and *overload*, indicating excessive contaminants entering the catalyst, the fuel mixture may be too rich or the engine may be overloaded or need a tune-up.

The new catalytic muffler is connected directly to the engine exhaust manifold. It is designed for horizontal mounting. Swivel brackets on the bottom of the muffler shell permit easy horizontal alignment even on sloping surfaces.

The world's shortest sermon, preached by a traffic sign: KEEP RIGHT!

Try the MODERN SAFETY DRILL TABLE



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For Faster, SAFER Work

Combines a drill table, a vise, a set of parallels and V block. No more lost fingers, from hand held jobs that slip. No more 30 minute set-ups for a 1 minute drilling operation. Made in 6 sizes, from 8" to 28" dia. We guarantee each Safety Drill Table will save its cost on labor alone in 6 months, to say nothing of plant down time when vital maintenance is delayed even a few minutes.

WRITE FOR FREE FOLDER

Shows many typical set-ups, and use on radial drills. Complete specifications on all models. Covers MONEY BACK GUARANTEE and 30 DAY FREE TRIAL OFFER.

MODERN MACHINE TOOL CO.
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4 Boxes—1000 Tissues Each
Size 4½" x 10½"—$7.00

Station Complete with Bottle & Sprayer Price—$5.45

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Trade Mark Reg. U. S. Pat. Off.

Lens Cleaning Tissues

Use Just Water, No Chemicals Needed

This new, chemically treated tissue is low in price and does away with expensive chemical sprays. Cleans and no-fogs goggles, eyeglasses and welding lenses with the addition of water only.

Tissues can be used several times.

Contact your nearest jobber or write us for samples and literature.

Distributors wanted. Write for proposition.

CARHOFF COMPANY
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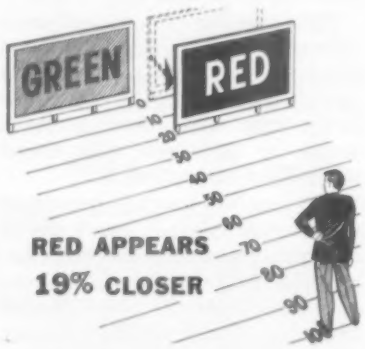
Apparent Distance Changes With Color

WHETHER AN OBJECT appears to be far away or near to you can depend on its color, according to findings of a research project conducted by the Psychological Laboratory of The Johns Hopkins University Institute for Cooperative Research in collaboration with Pittsburgh Plate Glass Company to determine the effects of color on distance.



The investigation revealed that a bright surface appears closer than a dark one with a maximum average change in apparent distances of about 17 per cent.

As much as 19 per cent change in apparent distance can be attributed to hue changes for saturated hues or deep colors. Less saturated hues—pastel colors—show the same effects but to a lesser degree.

Hues of longer dominant wave length appear closer than hues of shorter dominant wave length. In general, highly saturated colors tend to appear closer than colors of low saturation.

Apparatus used was in the nature of a general purpose reduction screen and depth perception device. The reduction screen provided the means for eliminating surrounding or background cues, while the mechanism for adjusting viewing distance allowed for continuous variation of distance without tactual or auditory cues. With slight modifications the apparatus was adaptable to a variety of problems in color viewing and the interactions between color and size, shape, brightness, distance, etc.

Provision was made for the simultaneous presentation of two

vertical comparison surfaces. These test surfaces were mounted on aluminum carriages, which rode back and forth (toward and away from the observer) along aluminum rails. The total length of movement was about five feet. Vertically mounted roller bearings rode smoothly along the horizontal flanges of the rails, while horizontal bearings prevented lateral movement of the carriages.

Among the more interesting brightness (value) effects were that a neutral white (high reflectance) appeared 5.4 per cent closer than a neutral gray (low reflectance). A high reflectance yellow appeared 13 per cent closer than a medium reflectance yellow and a medium reflectance green appeared 17 per cent closer than a low reflectance green.

Hue—the quality of color that distinguishes one from another—showed some very striking effects. For example, a saturated red (reflectance 11 per cent) appeared 19 per cent closer than a green of 13 per cent reflectance or a purple blue of 12 per cent reflectance and 9.3 per cent closer than bright yellow (66 per cent reflectance).

In saturation (or chroma) effects, a saturated or strong red appeared 15 per cent closer than an unsaturated red. In the same direction, the saturated green appeared closer than the unsaturated green.

In general the highly saturated strong colors tended to appear closer than colors of low saturation—the pastels.

A minor aspect of the experiment was concerned with color preferences to determine whether or not any relationship existed between preferences and apparent distance. Results showed no such relationship.

Fire Losses Decrease, Reverse Trend

The nation's fire losses in 1954 showed a decrease for the first time in five years, the National Fire Protection Association announces.

The NFPA estimated the total United States fire loss for 1954 to be $1,016,915,000, a decrease of approximately $5,000,000 from the previous year's total.

The 1954 total is the direct dollar loss resulting from approximately 1,993,300 fires of all types occurring in the United States. Indirect losses, it is believed, would add several billions to the estimate.

In a further breakdown, the NFPA has estimated the damage of 774,600 building fires at $875,-450,000. An additional 1,218,700 fires not involving buildings—aircraft, motor vehicles, forest, ships, rubbish, grass fires, etc.—accounted for an estimated $141,-465,000.

During 1954 the NFPA estimated there were a total of 450,000 home fires, 8,200 manufacturing fires, 82,900 mercantile fires, 5,300 schools and colleges, 4,300 churches, and a total of 126,800 fires distributed among farm buildings, garages, piers, power plants, lumber and coal yards, and other miscellaneous classifications.

PREVENT THE SPREAD OF DERMATITIS WITH DL DISPENSER and DL HANDI-CLEANER

● Industry recognizes Dermatitis and Hand Infections as increasing OCCUPATIONAL HAZZARDS. Guard against them with DL DISPENSERS and DL HANDI-CLEANER.

DL DISPENSERS eliminate contamination of cleaner supply preventing spread of Dermatitis . . . reduce "clean-up" time saving *Man Hours* . . . and, deliver 4 cleanings for a penny for economy.

DL HANDI-CLEANER dissolves stubborn, imbedded grime and grease *with* or *without* water . . . no need for harsh abrasives or irritating solvents. The Hexachlorophene and Lanolin in DL HANDI-CLEANER keeps hands soft and guards against infection.

Contact Your Supplier or write us.

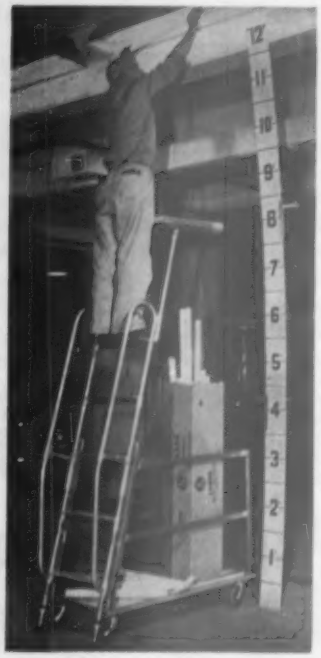
Merely refill with 5-pound throw-away DL can

MADE ONLY BY BANITE CO. BANITE BLDG., BUFFALO 4, N. Y.

Stop Being Old Fashioned

Stop using hand, foot and bar methods of closing latch-type lock hopper bottom car doors. Use the Prescott Safety Tool and prevent ruptures, strained backs and smashed fingers. Write today for free folder.

The Trumbull Mfg. Company
WARREN, OHIO



ROL-AWAY TRUCKS REDUCE LADDER ACCIDENTS

Model S-7-M Safety Ladder Truck is one of the many Rol-Away trucks which is specified by safety engineers. This model has the famous Rol-Away safety ladder with patented side bracing and safety treads. Checks slipping, rolling or falling. Economical as it reduces costly accidents. An ideal truck for installation and maintenance at high levels.

Model J—a big model designed to handle loads with safety from strains and falling loads.

Send for free illustrated catalog today!

ROL-AWAY

ROL-AWAY TRUCK MFG. CO., INC.
6143 S. E. FOSTER ROAD
PORTLAND 6, OREGON

Pageant of Power

—From page 48

plowing and road-building.

At a specially-constructed dock in a lagoon was a marine exhibit. There were long lines of people waiting to board a submarine of World War II fame, the *USS Tautog*. Also moored at the dock were several less exciting craft.

In addition to the submarine there was an imposing array of defense exhibits, including tanks and other armored vehicles which were put through their paces. Other defense features were an F-89 *Scorpion* fighter plane and the Army's atomic cannon.

General Motors Research Laboratories also presented exhibits which took visitors, in effect, behind the doors of industrial laboratories and testing centers.

In an outdoor theater on the lake front seating 7,000 persons, a fascinating stage show was put on four times a day. It featured tractors that do the mambo, strength contests between elephants and earthmovers, special music, dancers, a women's style show, trained horses, and other attractions.

Powerama generated its own electricity for power and light with Electro-mobile units. These units, one demonstration pointed out, can be used to supply communities with electricity in an emergency caused by power failure.

First aid facilities were provided both by General Motors and by the Chicago Park Districts. These were used principally for cases of fainting and for persons whose hearts might not prove equal to the strain. Reuniting lost children and their parents was another responsibility that was handled smoothly and efficiently.

You're only young once—but you can stay immature indefinitely.

If absence really made the heart grow fonder a lot of people would miss church more than any other place in the world.

COMING EVENTS

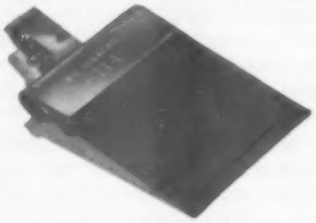
In the Field of Safety

Nov. 2, Fort Worth, Tex.
Eleventh Annual Industrial Institute, cosponsored by the Fort Worth Safety Council and the Fort Worth Chapter, American Society of Safety Engineers (Hotel Texas). L. W. Graff, safety director, Fort Worth Safety Council, Majestic Bldg., Fort Worth 2, Tex.

Nov. 3-4, Charleston, S. C.
Eighteenth Annual South Carolina Accident Prevention Conference (Francis Marion Hotel). J. Donald Watson, Jr., secretary-treasurer, P.O. Box 539, Columbia, S. C.

Nov. 3-4, Chicago
Illinois League for Nursing, Bien-

DOSIFILM
RADIATION SAFETY BADGE



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- LATEST SCIENTIFIC DESIGN
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- POSITIVE IDENTIFICATION

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For further information write to Health Physics Department.

R-C SCIENTIFIC
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nial Convention (La Salle Hotel). Mildred Lawrence, R.N., Michael Reese Hospital, 29th St. and Ellis Ave., Chicago 16.

Nov. 17-18, Cincinnati, Ohio

Fifth Annual Greater Cincinnati Safety Conference (Netherland Plaza Hotel). J. C. Maish, 1718 Union Central Bldg., Cincinnati, Ohio.

Dec. 1-2, Los Angeles

Second West Coast Noise Symposium Institute of Aeronautical Sciences, coordinated by the Greater Los Angeles Chapter, National Safety Council. A. M. Noyes, general chairman, 610 S. Main Street, Los Angeles 14.

Dec. 12-13, New Orleans, La.

Annual Louisiana Safety Conference and Exhibit (Roosevelt Hotel). Charles E. Doerler, secretary, P.O. Box 1148, Shreveport, La.

Jan. 19-20, Milwaukee, Wis.

Wisconsin Council of Safety, Midwinter Safety Conference and Exposition (Hotel Schroeder). R. W. Gillette, executive secretary-treasurer, Wisconsin Council of Safety, 1 West Wilson Street, Madison 2, Wis.

Feb. 2-3, San Francisco

Sixth Annual California Statewide Meeting, Governor's Industrial Safety Conference (Fairmont Hotel). A. C. Blackman, chief, Division of Industrial Safety, Department of Industrial Relations, State of California, 965 Mission St., San Francisco.

Mar. 4-6, Atlanta, Ga.

Southern Safety Conference and Exposition (Biltmore Hotel). W. L. Groth, executive director, P.O. Box 8927, Richmond 25, Va.

Mar. 19-21, Los Angeles

Third Annual Southern California Safety Congress and Exhibit (Ambassador Hotel). Joseph M. Kaplan, secretary-manager, Greater Los Angeles Chapter, National Safety Council, 610 S. Main Street, Los Angeles 14.

Apr. 5-7, Klamath Falls, Ore.

Forest Products Safety Conference. Charles Houston, personnel manager, Weyerhaeuser Timber Company, Klamath Falls, Ore.

Apr. 9-10, Toronto, Ont.

Industrial Accident Prevention Associations Annual Conference (Royal York Hotel). R. G. D. Anderson, general manager, 90 Harbour St., Toronto 1, Ont.

Apr. 10-12, St. Louis, Mo.

Central States Safety Conference (Hotel Chase). Reyburn Hoffman, secretary-manager, The Safety Council of Greater St. Louis, 511 Locust St., St. Louis, Mo.

Oct. 22-26, Chicago

Forty-fourth National Safety Congress and Exposition (Conrad Hilton Hotel). R. L. Forney, secretary, National Safety Council, 425 N. Michigan Ave., Chicago 11.

Metal Ladder Code Not Yet Approved

In recent issues of NATIONAL SAFETY NEWS, statements were made in the New Products Section that certain metal ladders met standards set up by the ASA and the Metal Ladders Association.

Attention has been called to the fact that a code for metal ladders is being submitted to the committee of the American Standards Association having jurisdiction but has not yet received approval.

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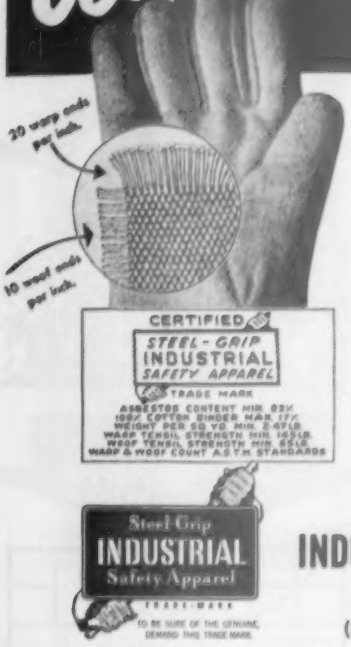

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Safety Apparel
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1439 FOURTH STREET (Since 1909) BERKELEY 10, CALIF.

Wire Rope

—*From page 35*

Enemies of Wire Rope

Wire rope is expendable; it wears out in time. To maintain safety, and, at the same time get the best service, some of the more common causes of wire rope abuse or neglect should be known:

1. Lack of Lubrication. Rusty ropes are dangerous and all wire ropes, especially those operating over sheaves, should be treated at intervals with a lubricant. Most lubricants carry rust-preventive compounds. It is best to refer to the wire rope manufacturer for proper lubrication.

Even zinc-coated marine ropes should be lubricated. Remember that the individual wires in a wire rope act like moving parts in a machine which must be oiled to run properly.

As a general rule, all wire ropes are lubricated at the factory during fabrication.

Wire rope slings should also be lubricated and kept free from moisture when not in use.

2. Overstressing or overloading. As in the case of slings, overstressing rope in operation is detrimental to its life. If slack is left in the line and the load is suddenly lifted, you may snap or break the cable. Raising and lowering of loads must be done gradually.

3. Kinks. Improper unreeling may throw a kink in a wire rope which cannot be removed and can cause premature failure. Similarly, it is not good practice to tie knots in wire rope to be used as a sling.

4. Ropes of incorrect size, construction or grade.

5. Exposure to heat or acid fumes.

6. Improper fittings.

7. Insufficient blocking when pulling slings from under loads.

8. No protection to rope when

pulled over sharp corners.

9. No thimble or hawser thimble for protection.

10. Shifting operating ropes from one job to another.

Summary:

To eliminate factors that make rope or slings unsafe, plant surveys can be very helpful. It is not uncommon to find some practices outdated or some in which improvements can be made. It is human nature to forget details. A written record of a survey, a simple drawing of a sling, or a safety chart are aids to safety.

Another approach is through standardization. Inspection, care, and maintenance of wire rope and slings can be made easier and less costly without sacrificing safety if recognized standards are used.

Table I — Additional Stress Due to Bridling

Angle of sling leg with vertical (deg.)	Reduction of strength due to bridling (per cent)	Strength remaining (per cent)
30	13	87
45	29	71
60	50	50
80	66	34
85	74	26

Table II — Efficiencies of End Attachments

Fitting	Approximate Efficiency (%)
Wire rope sockets	
spelter (zinced)	100
Compression fittings	
(swaged or pressed)	100
Bethlehem torpedo splice	100
Open wedge sockets	80-90
Clips (U-bolt type)	80
Spliced-in thimbles	
$\frac{1}{2}$" dia. and smaller	95
$\frac{5}{8}$" to $\frac{3}{4}$" dia.	90
$\frac{7}{8}$" to 1$\frac{1}{8}$" dia.	85
1$\frac{1}{4}$" to 1$\frac{1}{2}$" dia.	80
1$\frac{5}{8}$" to 2" dia.	75
2$\frac{1}{8}$" to 2$\frac{1}{2}$" dia.	70

One man had a secretary who was habitually late, by fifteen minutes, every day.

One day she slid smugly into her place only five minutes tardy.

"Well," said her boss approvingly, "I want to congratulate you. This is the earliest you have ever been late."

If life were lived backwards, from old age to youth, there'd be a lot more juvenile delinquents.

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SAFETY GUARDS — with H & K Standardized PARTS

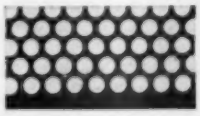
Punch Press—Die Guards

Belt and Machine Guards

Slotted 1/16" steel strips for making effective punch press die guards.

Round hole sheets and perforated frame members for easy assembly of gear and belt guards.

With these standardized parts your shop handy man, using only hand tools, can solve most of your guarding problems at minimum cost.



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When you install Diamond Bulletin Boards you are setting up lasting "message centers" where your messages are easily readable and protected from the elements. Employees can read them at any time because Diamond Bulletin Boards are illuminated and ventilated so that the glass will not fog.

Write for further information and prices.

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Major Cause of Hoist Accidents Eliminated

Casualty insurance company records show that most hoist accidents are caused by loads slipping or jarring off the hook. But, the Laughlin Division of American Hoist has helped plant after plant across the nation set new safety records with a hoist hook developed for safety as well as efficiency. Laughlin Safety Hooks have a powerful snap-spring latch that guarantees loads cannot be jarred from the hook. The sturdy channel-shaped latch also prevents overloading the hook with too many lines. It keeps the line of pull directly under the eye where it belongs Heat-treated and drop-forged from special forging steel, Laughlin Safety Hooks can be depended upon absolutely for safe, efficient operation Available in conventional eye, shank and swivel designs with safe working load capacities from 750-pounds to 20-tons. To safeguard your men and equipment, always specify Laughlin Safety Hooks. Where safety comes first, you'll find Laughlin comes first!

THE HOOK WITH SAFETY BUILT-IN!

For free catalog, write:

THOMAS LAUGHLIN DIVISION
American Hoist & Derrick Co.
St. Paul 1, Minnesota
makers of world-famous Crosby Clips

World's most complete line of fittings for wire rope and chain

Calendar Contest Winners for September

A farsighted guy is Joe Blow.
For "rainy days" he puts away dough.
But when it comes to his brakes,
Boy—the chances he takes!

First prize of $100 in the National Safety Council's Safety Calendar Contest goes this month to Richard E. Georgi, U. S. Atomic Energy Commission, Idaho Falls, Idaho. The theme in this contest was prepare for emergencies. Mr. Georgi's line was adjudged the best of all those submitted. It was:

Some rainy day they'll "put away" Joe!

Second prize of $50 went to Mrs. Charles M. Fay, individual member, of Warren, R. I., for this line:

Bank on safety—then "life savings" grow!

Third prize of $25 was awarded to Robert Carey, Bethlehem Steel Co., Pottstown, Pa., for the following line:

Where there's safety, he's "no account," though.

Thirty $5 awards were issued to:

W. H. Kleinline, C. & O. Railroad, Columbus, Ohio.

Earl C. Lawson, Lehigh Portland Cement Co., Chicago.

F. Lewis Graham, The Dow Chemical Co., Midland, Mich.

Jerry D. McCoy, Sinclair Refining Co., Houston, Texas.

Mrs. Hildreth H. Hatheway, U. S. Dept. of Fish & Game, Santa Barbara, Calif.

Clarence W. Todd, Corps of Engineers, Portland, Ore.

J. W. Keeler, Wabash Railroad, Decatur, Ill.

Lenore Pyle, Colorado Springs, Colo. (Individual Member)

Mrs. Donald Lindahl, Pickands-Mather & Co., Keewatin, Minn.

Sam Posey, Gulf Oil Corp., Houston, Texas.

Mrs. Ray Mellies, Shell Oil Co., Woodriver, Ill.

Robert T. Gidley, Dallas, Texas. (Individual Member)

Lt. Alen W. Coon, USAF, Waco, Texas.

Jeannette Berry, Central Illinois Public Service Co., Canton, Ill.

George Gambler, Bethlehem Steel Co., Bethlehem, Pa.

Mrs. J. F. Hemsky, DeKalb Agricultural Ass'n., Mt. Carmel, Ill.

Jerzy Sowa, The Sherwin Williams Co., Chicago.

Mrs. W. N. Sanders, U. S. Steel, Fairfield, Ala.

Mrs. Ernest M. Grider, General Motors Corp., Indianapolis, Ind.

Mrs. Austin James, Haynes-Stellite, Kokomo, Ind.

Joe Slosarcik, Socony Mobil Oil Co., East Chicago, Ind.

Bob Kreider, Armstrong Cork Co., Lancaster, Pa.

Russell Kinkle, Westinghouse Electric & Mfg. Co., Lima, Ohio.

Mary B. Hanton, New York, N. Y. (Individual Member)

Ralph Moore, Peoples Natural Gas Co., Pitssburgh, Pa.

Mrs. Earl Boyle, Buckeye Steel Castings Co., Columbus, Ohio.

Raymond W. Bursey, Dominion Steel and Coal Corp., Newfoundland, Canada.

Mrs. Edith E. Blackford, El Cajon, Calif. (Individual Member)

Mrs. Verner King, Dillonvale, Ohio. (Individual Member)

Mrs. Harvey Muller, Danboro, Pa. (Individual Member)

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- GREATER OIL RETENTION than ever before!
- The most DUSTLESS oil and grease absorbent you can buy!

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Menlo Park, New Jersey

Automation Show to be Held in Chicago

CHICAGO WILL BECOME the center of attraction to engineers and executives interested in plant and office automation when the Second International Automation Exposition opens its four-day stay at Navy Pier, November 14-17.

Products on display will include all equipment and components necessary to "automate" any process in office or plant—from automatic assembly, handling, and data processing equipment, to subminiature relays and switches.

In addition to the products displayed by 200 exhibiting manufacturers, the show will feature two lecture-demonstration clinics (one on electronic computers and one on conveyor automation) sponsored by the show management. A two-day "Senior Officer Conference on Office Automation" directed by Gordon L. Mattson and sponsored by the University College, University of Chicago, will be held in cooperation with the show. And a one-day conference on "Electronic Computers" will be sponsored by the Midwest Chapter, Armed Forces Chemical Association.

The Exposition is under the management of Richard Rimbach Associates, Inc., 845 Ridge Ave., Pittsburgh 12, Pa.

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"Lying in bed all day isn't the answer, Hector — you observe S-D Day by driving safely for 24 hours!"

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YOU NEED A . . .
DUPOR No. 4

The respirator that's made to order for protection against dust, fumes and paint spray! Has everything, and more than you will find in units costing twice the price! Double filters; soft rubber face mask; sanitary face cloth; exclusive Dupor valves for controlled breathing; panorama vision! Economical protection that you cannot afford to be without! Write for sample, $2.00 postpaid!

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- Extrusion Lubricants
- Rubber Mold Cleaners
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Off the Job

—From page 46

4. There was no appreciable increase in the work load of any one in administering the program.
5. Disability pay costs were lowered.
6. There appeared to be an improvement in employee morale.
7. Other results when combined with those listed above were of such a nature that management feels the action was one of the best undertaken in some time.

Planning for January and February

Operation Safety themes and materials for these months are "Winter Hazards" and "Know and Obey Traffic Laws" respectively.

Home and public safety themes for the same months are "Winter Hazards" and "Built-in Safety and Building Codes."

Plant Upkeep to Be Discussed at Philadelphia

FIFTY SESSIONS on 26 aspects of factory upkeep will highlight the seventh annual Plant Maintenance & Engineering Conference to be conducted in Philadelphia in January.

The conference, the largest annual industrial gathering of its kind, will be held concurrently with the Plant Maintenance & Engineering Show at Convention Hall, Philadelphia, January 23-26.

Both events are produced by Clapp & Poliak, Inc., New York exposition management firm. About 2,500 engineers are expected to attend the conference and some 20,000 industrial executives are expected at the show. L. C. Morrow, consulting editor, *Factory Management & Maintenance*, will serve as general chairman of the conference.

The show is one of the largest annual industrial expositions in the country. About 400 companies are expected to exhibit some 5,000 different products and services in 278 basic types.

The 1956 program will be arranged in three groups. There will be two general conferences, which all registrants attend; eight concurrent sectional conferences, at which papers will be read but the audience will split, and 16 concurrent, informal round tables for discussions of special problems. Each of the eight sectional conferences, and the 16 round tables, will be repeated during a second evening.

Six industries will receive special attention in the round tables. The air transport, chemical, iron foundry, petroleum refining, paper mill and paper product, and textile industries will have sessions devoted exclusively to maintenance problems in their respective plants.

The conference will start with a general session on "How We Look at Preventive Maintenance," with two presentations, one from a metal-working plant and another from a process plant. The second general conference will be a panel discussion on "Maintenance Controls."

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The eight sectional conferences will consider "Getting Maintenance People to Work as a Team," "Yardsticks to Measure Effectiveness of Maintenance," "Sanitary Standards and How to Meet Them," "Equipment Replacement Policies," "Using the Services of Independent Contractors," "Maintenance in Plants on 24-Hour Operation," "Maintenance Painting" and "Design and Operation of Maintenance Shops."

The round table discussions, in addition to the five specially devoted to particular industries, include "Maintenance of Yard Structures and Yard Equipment," "How Punched Cards Facilitate Maintenance," "Getting the Most Out of Electrical Equipment," "Lubrication Practices," "Maintenance of Machine Tools," "Report Writing," "Relation of Maintenance and Purchasing Departments," "Insuring Effective Utilities for the Plant," "Forms, Records and Reports" and "Tool Room Control."

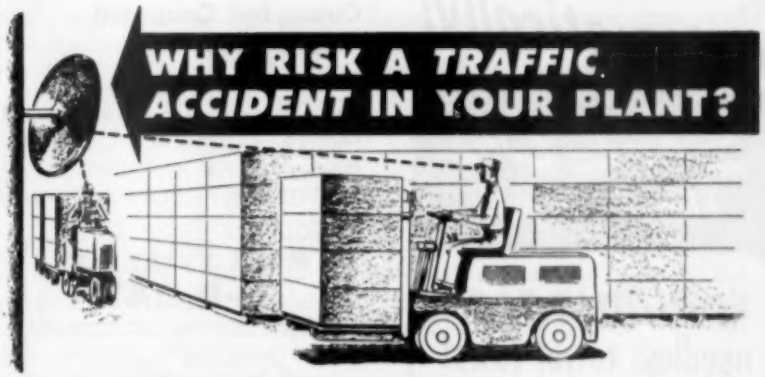
Install Seat Belts In Company Cars

EXECUTIVE Vice-President J. Victor Herd of the America Fore Insurance Group has announced that the group will install automobile seat belts in 1,350 company-owned cars and 250 personally-owned cars used by employees on company business.

This decision was made because the America Fore management recognizes that the safety seat belt in automobiles is a potential saver of thousands of lives in traffic accidents.

Mr. Herd has been using seat belts in his own car for several years.

Thorough research by several agencies has demonstrated that most fatalities and severe injuries occur by reason of the occupant being thrown against parts of the vehicle, or out of the vehicle by reason of crash deceleration. The number occurring by reason of the crushing effect of collision is relatively small. It is authoritatively indicated that at least 50 per cent of driver and passenger fatalities are preventable by use of the seat belt.



KLEAR-VU SAFETY MIRRORS are the answer to the dangerous blind corner problem in your plant or warehouse. They are also adaptable for outdoor use in your parking lot, loading dock area or other points where traffic converges.

Mounted at cross aisle intersections, entrances and exits at a height of 8 to 10 feet, Klear-Vu Safety Mirrors clearly reflect oncoming intersection traffic to both power truck operators and pedestrians.

Style	No.	Dimensions
Circular convex	120	12" diam.
Circular convex	180	18" diam.
Circular convex	240	24" diam.
Flat rectangular	918	9" x 18"
Flat rectangular	1640	16" x 24"

Available in either convex or flat glass styles, the mirrors are easily installed and quickly adjustable to any desired angle.

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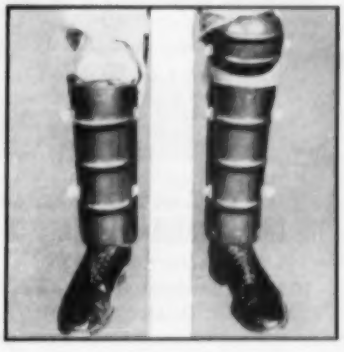
Equipped with NEW Rubber Strap and NEW Heavy Duty Anti-Skid Rubber Sole

The metal shield (above) is designed to furnish a maximum amount of protection to the entire front of the foot—not merely the toes alone, but also to the instep against hazards from falling, rolling or flying objects, or from accidental tool blows.

- **Absolute freedom of leg motion, utmost protection and comfort come with the leg-contour shaped "Sankey" fibre shin guard (right).**
- **Fibre knee-shin guard (right) provides flexible knee movement on jobs with both knee and shin hazards.**



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Sani-Dri
Electric Dryers

* **eliminate** needless towel costs!
(No more buying and storing of towels)

* **save** maintenance overhead!
(24-hour service—no waste to empty)

* **clean-up** littered washrooms!
(More sanitary! No fire hazard!)

No. 7-A Model. See catalog for recessed foot switch and other models

Even With Just 1 Washroom—
You Can Save, Too!

Savings are automatic with Sani-Dri! You eliminate 85% of washroom maintenance overhead PLUS 100% savings in towel costs. In addition, you get 'round-the-clock automatic drying service with greatly increased sanitation. Investigate this modern trend to low cost automatic drying now!

Write Today For Latest Facts!
Get the savings facts about Sani-Dri, the original and only complete line of dryers sold throughout the world. All models carry Underwriters' Seal and full 2-year guarantee. Write today!

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THE CHICAGO HARDWARE FOUNDRY CO.
"Dependable Since 1897"
10115 Commonwealth Ave.
NORTH CHICAGO, ILLINOIS

Cases for Comment

—From page 8

was immediately taken and showed a fracture of the heel bone. This was an impact type of fracture similar to pushing in the end of an egg and causing several small cracks. However, because the bone was not displaced and excessive swelling had not occurred, the foot could be placed in a "walking cast." The employee canceled his vacation plans and returned to work on the following Monday morning.

Decision. The injury should be considered as a temporary total disability and included in the industrial injury rates.

Comment. This accident could have been avoided had the scaffold been constructed according to standard practice. The scaffold boards, it was stated in the report, overlapped the scaffold frame work by 2 feet on each end. Scaffolds should be erected so that the overhang of the board should not be more than 8 inches, and not less than 4 inches. This will prevent the teeter-totter effect when a man walks near the end of a scaffold board. Section two of the *Accident Prevention Manual* discusses scaffold construction.

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S-D DAY

"Let's give it an overhaul — we want it in tiptop shape for S-D Day!"

Engineered
FOR LASTING SERVICE

. . . Whether it's a cafeteria cooler, a model with stainless steel or vitreous china top, or a type for remote installation, you can be sure of outstanding performance if it's Halsey Taylor.

Built with engineering precision, every Halsey Taylor provides the utmost in sanitation and convenience.

HALSEY TAYLOR

Send for latest catalog or see SWEET'S

THE HALSEY W. TAYLOR CO., WARREN, OHIO

Lots of Hazards

—*From page 27*

apparatus or masks are provided to protect against them. Some different gases, however, are evolved when known gas contacts hot metal or flame. For example, if a chlorinated hydrocarbon comes in contact with flame it produces deadly phosgene gas. Therefore, because it frequently is difficult to determine readily what type of toxic gas or vapor may be encountered in an emergency, the oxygen-breathing apparatus is used most of the time.

Chlorine and benzene are two of the most toxic products at the plant. Gas masks, with interchangeable canisters for various types of vapors and gases, are provided when required for production or emergency use. Employees working in areas where chlorine is stored or handled carry small, pocket-type respirators which can be put on quickly for protection against low concentrations of acid gases and vapors long enough to permit escape in an emergency. These appliances have replaceable cartridges.

At the chlorine tank car unloading spur, employees wear air-supplied respirators when breaking connections on the cars. Air is piped to the unloading platform and workmen can plug the mask hose line into outlets with quick connecting valves. The line is equipped with pressure reducer and filter. If the air-line respirator is not used, a gas mask with Bureau of Mines approved canister for chlorine protection is worn.

Every employee in the plant operating area is required to wear a protective hat and safety glasses. Visitors and outside contractors also are provided with this equipment. Following the custom of the petroleum industry, National Petro-Chemical uses the MacDonald Type T aluminum protective hat as standard.

Because of the gas hazard the company provides several instruments to administer artifical respiration automatically. The portable units are Pneolators, with auxiliary attachments for treating more than one victim simultaneously. These devices administer artifical respiration automatically with intermittent positive pressure, an important consideration if the victim has inhaled irritant gases like chlorine which may produce pulmonary edema. In the central dispensary and at the chlorine unloading area, Demand Pneophores are available to treat gas inhalation cases.

Gases and materials with low flash points are a continuing hazard. The lowest ignition temperature of the materials is 356 F. for ethyl ether. Three of the principal materials have ignition temperatures below that of the process steam lines which snake through the plant. Steam temperature is 750 F. and it is under 600 psi. pressure. Thus, gas leaks in lines or tanks are of great concern.

Frequent tests are made throughout the plant with portable Explosimeters which detect

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Safety Designed...
with comfort in mind!

time for
McDonald zero hoods

for **T-CAP** *or* **T-HAT**

ZERO HOOD—Head and ear style as shown in top photos or full head-ear-neck style as above. Really keeps cold out. 2 sizes, medium or large.

WINTER LINING—Makes the "T" hat comfortable in the coldest weather. Fleece-lined—easily interchangeable with regular headband.

Write for information and prices

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Manufacturers & Distributors of
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Other Offices in San Francisco and Houston

Please send information and prices on ZERO HOODS.

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combustible gases. These instruments also are used to check tanks and piping before any welding or other work is permitted in the vicinity. Special fire and safety permits for "hot" work are made out in triplicate, and all possible hazards are surveyed before the safety inspector and the area supervisor authorize the work to proceed.

Departmental work permits also are issued for jobs that require opening lines or equipment, altering the operation or function of operating equipment, creating a potential hazard in an operating area, or necessitating craftsmen to be in restricted locations within process equipment while it is in operation. Copies of these work permits go to the safety department.

In some areas of the plant, Explosimeter tests are made before any autos or trucks are permitted to enter. The inspector, wearing the instrument, probes the ground and nearby pipes and equipment in advance of the vehicle. Another important function of this device is to check the service vault of an underground propane storage cavern before men enter for inspection.

The plant also uses a new type instrument—the aromatic hydrocarbon detector—to determine toxic concentrations of benzene and toluene, both of which are used and stored. The small, hand-operated aspirator-bulb instruments have three separate calibrations for aromatic hydrocarbons and quickly give readings in parts per million concentrations. They are used for routine spot checking and special testing of aromatic hydrocarbons tanks, lines, and pumps.

Control rooms for the seven major processing units in the plant each are air conditioned and, to assure that no combustible fumes or vapors leak into the system, combustible gas alarms are used. The alarm continuously samples air being introduced into and recirculated through the air conditioning system to detect the presence of combustible concentrations. If the air is contaminated, the alarm automatically actuates an audible signal in the control room which is manned always.

To gas-free tanks and towers or cool down the ethane cracking furnaces for repairs, venturi-type air movers are employed. The air movers, operating with compressed air, have no moving parts but handle tremendous volumes. The ethane cracking furnaces, for example, operate at temperatures exceeding 1400 F. and cooling them down for repair work with ordinary blowers used to require 16 hours. Now, by installing one air mover at the top of the furnace to suck air out and another at the bottom to force air in, the unit can be cooled in only eight hours. Down-time for this important equipment is reduced.

Petrochemistry is a new and expanding industry, one that has posed many new problems of industrial accident prevention and fire prevention. But, basically, the hazards and exposures are directly related to two industries which have made significant contributions toward better protection of men and property. These are the petroleum industry and the chemical industry, from which the name, petrochemicals, was derived.

By applying to petrochemicals the principles of safety and fire protection which have been developed and perfected by and for the petroleum and chemical industries, every conceivable safeguard is provided at National Petro-Chemicals Corporation. The outstanding factors in the entire program, however, are the safety-consciousness and teamwork of both management and employees.

World Records Made By P&G Operations

A grand slam in world safety records in all of its manufacturing operations was recently announced by Procter & Gamble with the announcement that the cellulose pulp mill of its Memphis subsidiary, The Buckeye Cotton Oil Company, has set a new safety record in the pulp industry.

In the three other fields in which P&G has manufacturing operations—soaps and related products, fats and oils, and shell-

loading (explosives) — the company already holds world records for employee safety.

The pulp mill's 653 employees have worked since August 1953 without an accident serious enough to cause loss of time from work. The mill, which has exceeded by a considerable margin the previous pulp industry record of 2,612,656 accident-free hours worked, has gone past a million safe man-hours four times in the last eight years.

Other records are held by: the P&G Chicago soap factory, which ran up 3,745,369 safe man-hours between 1949 and 1952 to take top place in the soap and related products industry; The Buckeye Cotton Oil Company's Hollywood mill in Memphis, which set the fats and oils industry record in August by exceeding 1,634,068 safe man-hours and has since been setting a new record each day; and The P&G Defense Corporation's shell-loading plant, an ordnance installation operated for the government at Milan, Tenn., which won the top spot in its field last March by exceeding 6,000,000 safe hours of operations.

P&G Executive Vice President, Walter L. Lingle, Jr., attributes P&G's success as a four-industry safety winner to the fact that safety is a basic company policy:

"Working safely is a part of our teamwork—a very important part. Since the early days of Procter & Gamble it has been a basic operating principle that no operation can be declared successful unless it can be handled safely."

Safety Director J. R. Bollman pointed out that the safety records of P&G and its subsidiary companies are considerably ahead of the national average in their fields. In 1954 the frequency of disabling injuries in P&G's soap plants, Mr. Bollman said, was less than one-half the average for that industry, the frequency in fats and oils mills about one-eighth the industry average, accidents in the shell-loading plant about 1/15 the industry average, and accidents in the pulp operations about 1/11 the industry average.

In the current year, the company's record looks even better, he added, with 30 of 42 manufacturing units having had no disabling injuries during the first eight months of 1955.

According to Mr. Bollman, P&G and its subsidiaries have no "safety devices" in the usual sense. Rather, its machines and processes are designed originally with safety in mind. Blueprints and designs for new equipment are subject to Safety Department approval, and safety engineers also make a comprehensive, pre-run survey of the finished production line.

Carefully indoctrinated when they are employed and constantly updated on safe practices by safety engineers and supervisory and employee safety committees, employees take a keen interest in inter-plant and intra-plant competitions for safety awards.

Quite a bit of the world's trouble is produced by those who don't produce anything else.

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The Safety Habit

—From page 37

to explain why he continued to do something that previously had been pointed out as wrong or unsafe. Don't demand an explanation. Rather show concern, interest, fairness. You're looking for information and assume that he cares about his safety and wants to cooperate.

9. Don't be vague in your arguments. Show him how a persistent violation of safety rules will affect production efficiency, his welfare and that of other employees.

10. "Sandwich" in some complimentary remarks about the worker's good performance. You can't expect to convince him of anything while he is angry. Don't let him develop an attitude of "What's the use—nobody cares about how many things you do right."

11. Developing a new habit may require considerable self-discipline on the part of employee. Demonstrate your enthusiasm about safety and the fact that you believe in the value of what you're doing. Your vigilance in continually checking performance will cause an employee to develop a new work pattern.

12. Do not limit your talks to observed violations of safe working practices. Arrange to talk to at least two persons a day about their safety. Be sincere and show the employees that you are expressing your own thoughts and not merely carrying out instructions.

13. Give your people the opportunity to discuss freely their feelings about the value of safe procedures. Listen carefully to any suggestions offered, use them if possible, and if they can't be used be sure to explain why not.

14. Emphasize instances of the company's interest in the individual's welfare. Point out what the company has done to make it easy for him to avoid being injured.

15. Try to find out what there might be about a job that interferes with job satisfaction.

16. Make sure your instructions are understood. Try to anticipate the usual objections that might arise.

17. Point out that the individual stands to suffer in event of a serious injury, i. e., reduced earning power, probably loss of opportunity for advancement, inability to provide planned benefits for dependents, effects of permanent injury.

18. Create an attitude that will inspire employees to ask, "How can we help?" Encourage suggestions that will reduce the probability of injury.

An important factor of the psychological aspect of the training program is the stress on proper "motivation" forces which supervisors are urged to apply in efforts to improve employee cooperation. According to Webster, motivation means "any motion which prompts one into action" or "to get someone to want to" do something.

Because people often react adversely to a suggestion, it is vital not only to know what motivates them but also how and when to prompt them into action. It's obvious that you should not motivate them to safety when they are not physically or mentally capable of doing what is asked.

Motivation is more effective:

1. When objectives of the safety program are clear and definite. Be specific in your instructions so there will be no misunderstanding.

2. When the objectives are within the capabilities of employees. Don't ask the men to clean up 10 years of neglect in three days when, obviously, it would take 30 days even to get started.

3. When objectives are simple. Don't start all at once, requesting active par-

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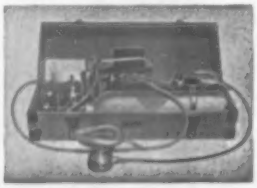

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ticipation in a general housekeeping program and expect enthusiastic response. That just stops them. They don't know where to start so they don't do anything. Start with one simple project at a time.

4. When the objective provides challenge. Don't say, "Let's clean up the department for the next 30 days," when they have been doing it every day for the last two years. This is no challenge. It is better to suggest "Let's improve housekeeping by doing: 1...., 2..., 3...., etc."

Army Unit Purifies Water for Flood Area

NINETY-NINE THOUSAND gallons of drinkable water were produced and distributed by the Army's new mobile purifier during nine days of emergency operation recently in flood-ravaged Stroudsburg, Pa.

Developed by the Corps of Engineers' Research and Development Laboratories, Fort Belvoir, Va., the truck-mounted unit is capable of purifying 3,000 gallons of water an hour, 24 hours a day. A six-man team of water experts headed by Harry N. Lowe, Jr., chief of the Laboratories' Sanitary Engineering Branch, worked 13 hours a day to produce quality water in quantities exceeding the demand. This did not require working the unit at full capacity.

Dispatched to Northeastern Pennsylvania at 2 a.m. on the morning of August 20, the group arrived in the Pocono resort town two days later, after assisting in the estabishment of an emergency water supply in stricken Scranton.

The unit, which is nearing standardization by the Army, is a member of a "family" of purifiers which resulted from years of basic and applied research at the Laboratories. Other units include 1,500 and 600 gallon-per-hour capacity mobile purifiers, and a semi-permanent one capable of producing 10,000 gallons of drinking water each hour.

Heart of the purifiers is an "erdlator," an all-metal solids contact clarifier which chemically coagulates and removes mud, bacteria, and other suspended matter in the water and makes effective disinfection possible.

This up-flow coagulation basin is connected in series with diatomite filters. The combination not only removes silt and destroys bacteria, but also provides positive physical barriers to the passage of organisms which cause dysentery and "schistomiasis," a serious water-borne disease found in the Far East.

Polluted water can be pumped into the units and chemically and physically treated and discharged as potable water in approximately 20 minutes.

Excellent performance and short detention periods of the units are attributed to the use of pulverized limestone, which is almost universally available and costs less than $12 a ton.

Only one man is required to operate each unit and it can be put into operation by three men in less than 90 minutes after arrival at a selected site. Equipped with its own power source, it can be operated in total blackout. The only noise audible is from the engine driving the generator.

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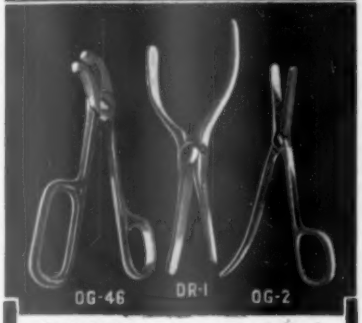

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New stretcher makes any vehicle an emergency ambulance

Here's another use for the versatile new Haggard's all-purpose stretcher kit. No matter what type of stretcher you now have, you have need for the new Haggard. It does all the things any stretcher can do, plus many more. It is a complete unit ready for instant use anywhere. It is so compact that it fits into a car trunk. Lightweight, only 28½ pounds complete with case, blanket, first aid supplies, and accessories. It's such a totally new concept in utility, versatility and practicality that you should investigate it at once. See how easy it is to store, transport, and put to use. See all the advanced, needed features that make it a combination litter, fracture board, traction splint, and resuscitator. Compact, convenient, complete. Ask your MSco distributor for a demonstration or write Medical Supply Company, Rockford, Illinois. In Canada, Safety Supply Company, Toronto 2.

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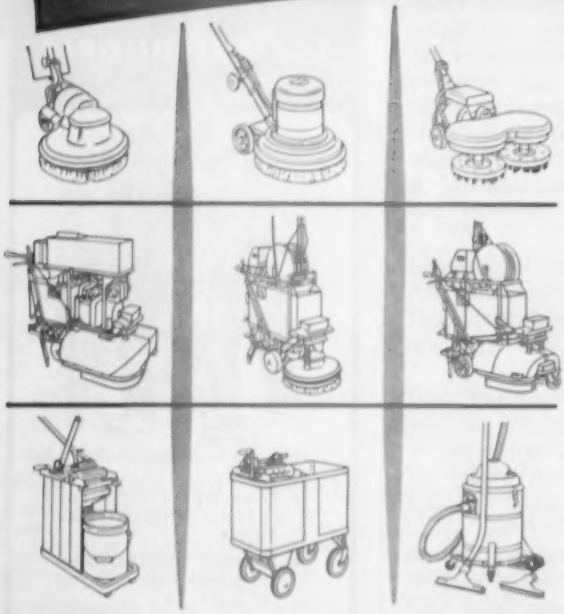

However much a maintenance man may want to do a good job, and at the same time show savings in labor costs, he's *stymied* if the machine is too small, or too large, or is otherwise unsuited to the job. Different floors and areas call for different care and equipment. That's why *Finnell makes more than a score of floor-maintenance machines.* From this complete line, it is possible to choose equipment that is correct in size as well as model . . . that provides the maximum brush coverage consistent with the area and arrangement of the floors.

Finnell makes *Conventional Polishing-Scrubbing Machines* in both concentrated and divided-weight types, each in a full range of sizes . . . a *Dry-Scrubber*, with self-sharpening brushes, for cleaning grease-caked floors . . . *Combination Scrubber-Vac Machines* for small, vast, and intermediate operations, including gasoline as well as electric models . . . *Mop Trucks* . . . *Vacuum Cleaners* for wet and dry pick-up, including a model with By-Pass Motor. In addition, *Finnell* makes a full line of fast-acting *Cleansers* for machine-scrubbing . . . *Sealers* and *Waxes* of every requisite type . . . *Steel-Wool Pads*, and other accessories — *everything for floor care!*

In keeping with the *Finnell* policy of rendering an individualized service, *Finnell maintains a nation-wide staff of floor specialists and engineers. There's a Finnell man near you* to help solve your particular floor-maintenance problems . . . to train your operators in the proper use of *Finnell Job-Fitted Equipment and Supplies* . . . and to make periodic check-ups. For consultation, demonstration, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 2211 East St., Elkhart, Ind. Branch Offices in all principal cities of the United States and Canada.

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NEW SAFETY EQUIPMENT

Further information on these new products may be obtained by writing direct to the manufacturer or by circling the corresponding item number on the Reader Service Postcard.

Safeway Hook

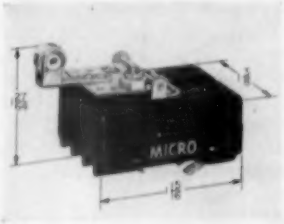
A safety device designed to eliminate fastening and unfastening knots every time the position of a scaffold or bos'ns chair is changed is available. The knot on the Safeway Hook is made just once — for the duration of the job. The hook will be useful in building, repair and maintenance, or wherever scaffolding and staging are used. Its simplicity allows the job to be done quickly and safely. The hook is

made of aluminum alloy, and has a tested safety capacity of over 2,000 pounds. The Safeway Hook is available with or without the complete bos'ns chair with brackets for a safety belt.

Structural Safety Service, Inc., 135 Broadway, New York 6. (Item 1)

Single-Actuated Dual Switch

A new single-actuated dual switch designed for a wide range of industrial control and electronic application has been developed. A low-force, double-pole switch with the ability to switch two isolated circuits at the same time, it is designated the 6AS13. It consists of two basic switching units operated by a single roller-lever actuator. Operating point of one switching unit is field adjustable to provide either simultaneous actuation or a definite sequence of operation.



The 6AS13 is available with a variety of lever lengths, either straight or formed levers, with or without a roller. Positions of levers can be varied to left or right to fit existing applications in which a single-pole, double throw basic switch was previously used. Basic switching units of the 6AS13 are listed by Underwriters' Laboratories at 15 amperes—125, 250, or 460 volts a-c, ½ ampere, 125 volts d-c and ¼ ampere—250 volts d-c. Units are available to provide higher electrical capacity for d-c circuitry or for special circuit applications. Operating characteristics of the switch, assembled with two 15 ampere basic switch units, are: Operating force, 8 oz. max.; release force, ½ oz. min.; differential travel, .109 in., max.; and overtravel, .020 in., min.

Micro Switch Division, Minneapolis-Honeywell Regulator Co., Freeport, Ill. (Item 2)

Ventilated Arm Protector

A light-weight arm protector featuring a wire mesh construction which allows free movement of air

through to the arm of the wearer, and affords protection against flying objects, abrasion, and cutting by metal or glass sheets, is available. A lockslide closure is incorporated into the straps and permits full adjustment. The protector is large enough to fully wrap around the arm. A hollow, tubular edge binding gives a smart appearance and finishes off the wire cloth neatly. Monel or electro-galvanized steel wire cloth is available. The protector is useful for handling of steel sheet, glass, protection of arms for meat cutters, and other work where danger of arm injury is present.

Wheeler Protective Apparel, Inc., 224 W. Huron St., Chicago 10. (Item 3)

Aluminum Stair Treads

Stairs may now be made skid-resistant by use of extruded aluminum safety treads. Eleven abrasive ribs dovetailed into the "Stairmaster" Safety treads allow the slip-proof quality. Repairing treads in

this manner is said to be less expensive than replacing the worn treads themselves and rebuilding the stairway. The safety treads come in a standard width to fit all stairs and factory cut to length as required. The treads are drilled for easy installation and a leveling compound is available for worn steps.

Wooster Products, Inc., Wooster, Ohio. (Item 4)

Aluminized Clothing

An aluminized glass cloth, designed for hazards where excessive heat and molten metal are not factors, has been developed for work

clothing. It is not designed for fire-approach or fire-entry suits, but the cloth is made up in aprons and many different types of garments that are light in weight, flexible, and for use where mild heat is a factor, and where abrasion resistance is needed. According to the manufacturer, the product's reflectiveness is about 60 per cent compared to other forms of aluminized clothing, and is low in cost.

The H. M. Sawyer & Son Co., 20 Thorndike St., Cambridge 41, Mass. (Item 5)

Ammonia First Aid Kit

A first aid kit containing the medical equipment necessary for administering first aid to a person who has come in direct contact with anhydrous or liquid ammonia is available. Four polyethylene containers of "Neutralize," a colorless, odorless liquid, will counteract the effects of ammonia immediately. It is essential only that the product be poured directly into the eyes or over the skin.

In addition there are 11 unit first aid packs in the kit, containing gauze pads and absorbent compresses, scissors, eye dressing equipment, and merthiolate. Complete instructions for specific first aid treatment of ammonia victims is included in each kit. Packed in a weatherproof and dustproof first aid kit, the kit can be hung on a wall, truck, or tractor, with snap locks and back hinges that are spot welded.

E. D. Bullard Co., 275 Eighth St., San Francisco 3. (Item 6)

Safety Mirrors

The development of two large circular convex glass mirrors for industrial use is announced. The mirrors are 30" and 36" in diameter. The safety mirrors, called Klear-Vu, are especially designed for use in factories and warehouses where blind corners, cross aisle intersections, entrances, and exits present a traffic problem. Installed in these locations at a height of 8 to 10 feet, these convex mirrors clearly reflect for a considerable distance the movement of oncoming floor

traffic from opposite directions.

The mirrors are easily installed and quickly adjustable for any desired angle. The mirror head is strongly supported with a three-inch swivel stud assembly and a mounting bracket. The mirrors are also adaptable for outdoor use around parking lots, loading dock areas, and other points where traffic converges.

Lester L. Brossard Co., 540 N. Michigan Ave., Chicago 11. (Item 7)

Fiber Glass Ladders

A fiber glass ladder, said to combine the superior strength-to-weight ratio of light-weight metal ladders with non-conducting qualities, has been developed. The ladder combines fiber glass reinforced side rails with non-twisting aluminum or magnesium rungs which are plastic welded to become an integral part of the ladder. According to the manufacturer, tests on the ladder show a durability exceeding that of wood, due to superior resistance to chemicals, heat and water and showed a tensile strength of 37,200 p.s.i.

The ladders are available in various sizes and with either tapered or straight sides. Extension ladders are made with the bottom section approximately 19 inches wide, and the top section approximately 15¾ inches wide. All single and extension ladders come equipped with safe-hi-shoes.

Putnam Rolling Ladder Co., Inc., 32 Howard St., New York. (Item 8)

Dust Collector

A new after-filtering mechanism has been designed for this manufacturer's model 219 FM-A cyclone type dust collector. Used to collect dust, lint, chips, powders, and fumes in industrial plants, the 219-FM-A recirculates filtered air back into the room, thus preventing heat loss during cold weather. The model pulls 2,100 cu. ft. of air per minute through the 8 in. inlet at a static pressure of 3.0 in. water and an air speed of more than a mile a minute. Depending upon the particle's size and specific gravity, efficiency of the unit's centrifugal action varies from 75 to 95 per cent; thick pads of glass insulation wool on each of two open surfaces on the after-filter frame

remove any fine dust that has not already been trapped in the collector's 4½ cu. ft. capacity internal reservoir.

Each filter is held to the frame by six wing nuts which may be quickly removed for replacing material. The dimensions of the unit are: height—93¼"; depth (less after-filter)—30"; width—24". The after-filter measures 81" x 51" x 14".

Department KP, Torit Mfg. Co., 287 Walnut St., St. Paul 2, Minn. (Item 9)

Orlon Work Clothes

Fitted work gloves, matched sets of uniforms consisting of caps, jackets, trousers and shirts, and underwear are now available made of orlon. This material has great resistance to corrosive chemicals. The orlon clothes are especially applicable to on-the-job needs because they resist damage by abrasion, heat, cold and sunlight, greases, paints, moisture, and acid and acid-fumes. Easily laundered, the orlon has high tenacity and tensile strength.

Worklon, Inc., 253 W. 28th St., New York 1. (Item 10)

Flashing Light

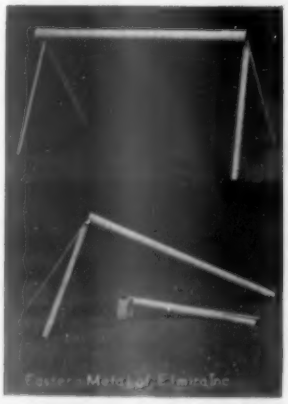
Model 1-100 LSR, an industrial flashing light, warns of dangerous and restricted areas. Model 1-100 LSR requires no maintenance, no fuel, and no day-to-day servicing.

It is weatherproof, uses no kerosene and presents no fire hazard. It is equipped with a tamper-proof switch, and is operated by a Neo-Power Pak battery and produces up to 1,000 hours service.

Neo-Flasher Mfg. Co., 3210 Valhalla Drive, Burbank, Calif. (Item 11)

Safety Barricade

A safety barricade featuring lightness, portability, and ease of assembly is introduced. The "E-Z barricade," is formed by two folding "A" ends and a steel tubing cross-bar. Two thumb screws hold the unit together. When assembled, the "A" ends are held open by a patented locking device, and when locked, the barricade cannot be blown or kicked over. A baked-on chrome-yellow enamel finish gives the barricade extreme visibility at night or daytime.



As an added safety feature, a variety of safety signs may be hung on the center of the cross-bar by means of two free-swinging hooks supplied with the unit. Two models are offered—regular and super. The regular model has an overall height of 36 in. and the super model has an overall height of 42 in., both measured when opened. Variable length cross-bars are interchangeable between both models.

Eastern Metal of Elmira, Inc., 130 Harrison St., Elmira Heights, N. Y. (Item 12)

Potassium Cyanide Cylinders

A non-flaking, non-dusting, sulfur-free form of potassium cyanide has been developed. Produced in "marshmallow" form, it can be conveniently stored, with much less danger of air pollution due to dust, and can be transported in wire containers. These fused one-half ounce potassium cyanide cylinders have been named Cya-Nodes. They can be easily weighed in specific amounts, and present few problems in handling. The danger of spilling and

splashing, as exists in liquid forms of potassium cyanide, is eliminated. If Cya-Nodes are spilled they are easily retrievable with no danger to the operator, and cannot leave a poisonous residue on floors, equipment, etc.

Although a fused form of cyanide is not a new idea, the manufacturer feels that this lighter form will make the use of this product easier. In a normal powdered form potassium cyanide, if inhaled, causes irritation of the respiratory tract, is dangerous to the eyes, and when in contact with the skin it can be absorbed into the tissues.

Kraft Chemical Co., Inc., 917 W. 18th St., Chicago 8. (Item 13)

Ear Noise Guard

An ear plug, called the "Selectone," that will be useful in such industries as boiler factories, textile plants, metallurgical plants, and lumber mills, is available. The device is inserted in the auditory canal (inner ear) like a plug and can be easily removed at any time. While the "Selectone" allows easy comprehension of ordinary speech and of telephone conversation, it effectively muffles harmful noises.

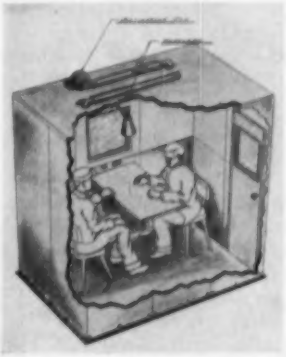
The plug is available in several types that allow varying degrees of noise to penetrate the device. The guard consists of a selective filter, which permits the frequencies necessary for the comprehension of

ordinary speech to pass through, but completely muffles those causing loud and harmful noise. The range of sound to be muffled can be adjusted to the sound conditions encountered. The protective device has the appearance of an ear plug with a soft synthetic rubber covering.

United Cable Corp., Harwood Bldg., Scarsdale, N. Y. (Item 14)

Soundproof Room

A soundproof room that can be used as a shop office, telephone room, etc., has been developed. Designed in association with industrial medical departments, the room is completely pre-fabricated, quick to assemble, and because of its modular construction, it is readily expandable by adding pre-fabricated sections. There is room for two



people, a phone jack is provided, and the room is well lighted and ventilated, and comes equipped with an adjustable table.

Walls are constructed of special laminated, metal-clad sound-proof material. Inside, the room is 6′ 6″ long and 4′ wide. The room is shipped in sections and can be assembled by two men in less than four hours. It can also be furnished with a frame for moving by crane or fork lift, or mounted on casters.

Kittell-Lacy, Inc., 714 W. Olympic Blvd., Los Angeles 15. (Item 15)

Explosion-proof Cleaner

An Underwriters' Laboratory approved vacuum cleaner for wet and dry pick-up is available. The cleaner has been accepted for use in Class 1, Group D (atmospheres containing volatile fumes or liquids) or Class II, Group G (atmospheres containing flour, starch, or grain dusts).

The machine is powered by a ⅞ hp by-pass, moisture-proof motor. The dry capacity is 1⅞ bushels; wet capacity, 15 gallons. Convenient dump valve, rubber bumper, and swivel caster wheels are features. It is available with various combinations of cleaning accessories and tools.

Clarke Sanding Machine Co., Muskegon, Mich. (Item 16)

Pneumatic Chisel

A pneumatic chisel shank that helps eliminate shank breakage and reduces hazards is available. Featuring a greatly increased shank cross-section and lacking sharp shoulders where breakage normally occurs, the shank is as strong as the chisel body itself. The chisel shank makes chipping operation safer because the chisel can be worn down to a nubbin without fear of shank breakage.

The shank, called the SN, increases the efficiency of pneumatic chisels as the full power of the hammer is delivered to the cutting edge of the chisel.

Delaware Tool Steel Corp., Wilmington 99, Dela. (Item 17)

Waterless Hand Cleaner

A waterless hand cleaner, containing lanolin and hexachlorophene, that brings ground-in dirt and grime to the surface is available. The cleaner easily and quickly removes grease, carbon, paint, printers' ink, gum, tar, lipstick, asphalt, etc. Only a small amount is necessary. The cleaner is practically colorless and has a loose, paste-like consistency. It is available in 1½-pint and 3-quart tins. A specially designed dispenser is available for the 3-quart tin.

Mione Mfg. Co., Collingdale, Pa. (Item 18)

Terrazzo Sealer

A sealing material that protects terrazzo, clay tile, ceramic tile, and marble floors is available. The product gives a tough, waterproof seal that resists dirt and stains, even those of greases and chemicals. According to the manufacturer, the

sealer provides a safe, slippery-resistant surface which is impervious to water and provides an excellent base for waxes. It dries quickly and allows easy cleaning of floors.

Huntington Laboratories, Inc., Huntington, Ind. (Item 19)

Drop Gate Guard

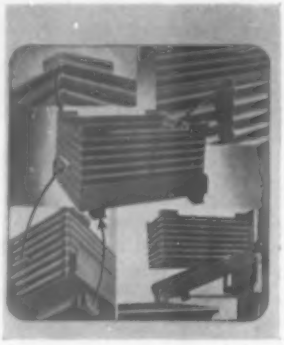
A drop gate electro solenoid guard for punch press safety is available. The barrier is designed so that it surrounds the die area when in the down position, eliminating the hazard of reaching in the ends. Units are available for all size presses, and come pre-wired, ready to attach to the press, and the installation is simple.

Incorporated in the guard is a positive electric control for the operation of the press and a built-in single stroke attachment. The downward action of the gate causes a switch to energize a solenoid that is used to trip the press. The upward action of the guard resets a relay, mounted in the control panel so that the press can be retripped on the next downward action of the gate. The guard may be actuated either by hand for small bench type presses or by foot control for larger presses.

Searjeant Metal Products, Inc., Mendon, N. Y. (Item 20)

Drop Bottom Box

A new corrugated all-steel welded drop bottom box has been announced. The boxes are made for use either with positioning stand or for controlled dumping by fork truck. Safety corners prevent box



shifting during stacking or when two or more are transported up or down grade by a fork truck. Corrugated rolled steel legs on the bottom of the box lifting plate are reinforced with steelplate. Boxes also have lapped joints, replacing butt welds for greater strength and safety.

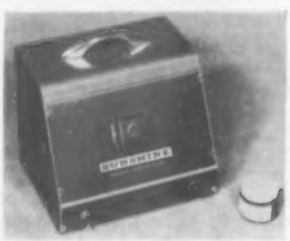
When used on a positioning stand, the legs at the bottom of the box engage the stand and the drop bottom automatically opens to discharge materials into the stand tray. When used for automatic dumping by a fork truck, a reinforced box hanger engages the mast of the fork truck for controlled material discharge into a truck or conveyor.

Boxes can be built from any gauge steel to customer dimension and capacity specifications.

Palmer-Shile Co., 12643 Mansfield, Detroit 27, Mich. (Item 21)

Mercury Vapor Monitor

A continuous sampling mercury vapor detector is available. It safeguards health of employees, is sim-



ple to operate, and easy to maintain.

The detector operates on the principle that selenium sulphide coated

paper will darken in the presence of mercury vapor. The degree of darkening is dependent on the mercury concentration, the time of exposure, the temperature, and the velocity of the air passing over the selenium sulphide. With the use of a color comparison chart, supplied with the detector, selenium discoloration is converted to mercury vapor concentration. The device is useful in industries where the presence of toxic amounts of mercury vapor must be detected.

Sunshine Scientific Instruments, 1810 Grant Ave., Philadelphia 15. (Item 22)

Valve Coupling

A valve coupling that allows the operator complete control of the air line and permits line air to be shut off and tools changed easily, quickly, and safely at any point is now available. After connecting the jaws of the valve half around the shoulder on the connection half, the operator advances the knurled brass sleeve to "on" position. This permits line air to flow through the sleeve and

out through the line to the air operated tool. Turning the sleeve to the right locks both the coupling and the valve in "on" position, preventing accidental disconnection.

An easily replaceable "0" ring in the steel nose piece of the valve half is sealed against a recess in the stainless steel nose piece of the connection half by line pressure, assuring tight, leak-proof connection, yet permitting free swiveling of the coupling to prevent hoses from kinking.

Returning the knurled brass sleeve to "off and exhaust" position exhausts the air in the tools to the atmosphere automatically and safely; traps the line air in the sleeve; and permits the jaws of the coupling to be opened so that connections can be made to another tool. Turning the knurled sleeve to the left locks the valve in "off and exhaust" position and prevents the valve from being opened accidentally to exhaust air under pressure to the atmosphere. The valve couplings are available in several sizes for line air up to 250 p.s.i.

C. B. Hunt & Son, Inc., Salem, Ohio. (Item 23)

Ice Melting Pellets

A chemical ice and snow melting pellet is available. The chemical ingredient is said to retard rust action, increase storage life and create a moisture seal within the container and prevent chemical decomposition. It helps safeguard against excessive rust in the de-icing of metal

pipes, drains, downspouts, railway switches, metal loading ramps, and curbs. According to the manufacturer, "Ice Rem" has 30 times the thawing capacity of salt. A light sprinkling on slippery surfaces is said to remove ice and snow without harming vegetation, rubber, asphalt, and paved surfaces. It is available in various size containers.

Speco, Inc., 7308 Associate Ave., Cleveland 9, Ohio. (Item 24)

Aluminum Ladder

An aluminum ladder featuring "I-Beam" channel construction, which gives maximum strength and rigidity with a safety factor of four at all working lengths, is available. This "900" series of ladders has rung joints which are hydraulically locked to the side rail. These new joints prevent racking and cannot loosen, are larger than previous models and have deep corrugations making them slip resistant. The top tips of these ladders are coated with a red vinyl protective covering which provides a mar-resistant top. The material has excellent resistance against weathering, oil and grease.

Other features include spring loaded safety locks that provide a safe grip between extension ladder sections and heavy-duty aluminum safety shoes with skid-proof corrugated rubber treads. Single ladders are available in lengths from 8′ to 20′, two-section extension ladders from 20′ to 40,′ and three-section extensions from 40′ to 60′.

R. D. Werner Co., Inc., 295 Fifth Ave., New York. (Item 25)

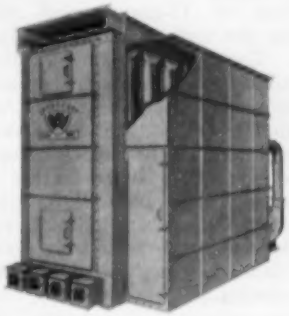
Hand-Operated Pumps

Hand-operated pumps for all standard size glass carboys and designed for use where acids, alkalis, and other corrosive liquids have to be transferred in small quantities have been developed. These pumps, completely fabricated of unplasticized poly vinyl chloride, allow interruption of the flow of liquid at the right moment in the emptying of carboys. They are not attacked by most of the usual corrosive liquids. Two types are available, one equipped with a plain outlet, the other with a polyethylene stopcock. Both are designed to fit tight in the neck of the carboy.

American Agile Corp., P. O. Box 168, Bedford, Ohio. (Item 26)

Dust Filter

A new housing construction for reverse jet Hersey type dust filters of this manufacturer features a walk-in access and two inspection doors. Small access doors are located at the top and bottom of the



filter chamber and allow periodic lubrication and inspection. The walk-in access door provides convenient entry into the filter housing for examination of the operating mechanism and filter tubes. The door allows maintenance and repairs to be made more easily than on previous models.

The Day Co., 810 Third Ave., N. E., Minneapolis, Minn. (Item 27)

Hydraulic Lift Truck

Model 4M-20 Turnabout, a lift truck designed for simplified handling of materials in double-face pallet systems, is now available. The truck features an overload by-pass

safety valve which prevents overloading; interchangeable forks in lengths ranging from 24″ to 48″ in standard sizes and 54″ to 72″ special; "no-drop" handle that stays in place in any position; smooth hydraulic lifting and lowering action;

grip release on handle for lowering control, and high maneuverability. The height of the truck in lowered position is 3¼′, and the elevated height is 4′. The truck is available with various size fork lengths.

Rack Hydraulic Equipment Corp., 167 Sixth St., Connellsville, Pa. (Item 28)

Tubeaxial Fans

A belt-driven tubeaxial propeller fan designed for handling corrosive exhausts, high temperature, explosive fumes, and similar difficult air moving applications is available in five sizes up to 36″. The fans have air delivery ratings to 26,000 cu. ft. per minute.

Made of 12-gauge steel plate, seams are welded to prevent leakage. The motor-mount assembly permits belt adjustment, and can accommodate any motor from ¼ to 5 hp. Propellers are cast from a special aluminum-magnesium alloy which provides high tensile and shock strength and has corrosion resistance to mild alkalis. A rigid, one-piece cast-iron housing isolates the fan bearings from the polluted air stream.

Three bearing assembly designs are available: totally enclosed, ventilated (for high temperature requirements), and corrosion resistant. All metal parts receive a special coating to inhibit rust and corrosion. The ball bearings are fully sealed to prevent lubricant contamination.

Robbins & Myers, Inc., Springfield, Ohio. (Item 29)

Emergency Light

A compact, self-contained emergency lighting unit with a built-in relay system which automatically illuminates two sealed beam flood lamps the instant normal lighting is interrupted is available. Underwriters' Laboratory approved, the lights require no installation or

special wiring. They are furnished with a 6-ft. rubber cord and plug which can be plugged into any 110-115 a.-c. outlet. A red pilot light, using a neon bulb, burns continually to show the current is connected. Built-in test equipment, consisting of a momentary toggle switch and voltmeter, tests both battery and lights.

American Emergency Lighting Co., 1324 Locust St., Philadelphia 7. (Item 30)

Portable Oxygen Unit

A new portable oxygen unit designed for emergency administration of oxygen is available. It is recommended for emergency use by physicians, ambulance services, police and fire departments, civil defense units, industrial plants, power companies, and mines. The unit consists of the carrying case, yoke for medical-type cylinder valves, needle valve control with pressure indicating gauge, supply tubing, collector bag, inhaler assembly modified to limit positive pressure to approximately 20 mm. Hg., face mask, and cylinder wrench.

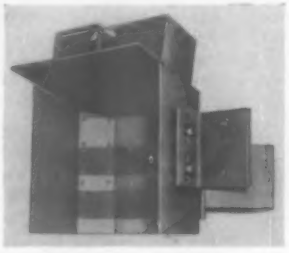
When used for resuscitation the needle valve is opened wide to permit the bag to fill while the mask is held in position on the patient's face. Pressure is then applied to the bag by squeezing to force the oxygen into the patient's lungs.

Ohio Chemical and Surgical Equipment Co. Div., Air Reduction Co., Madison 10, Wis. (Item 31)

Sand Slinger Magnet

A non-electric magnetic sand slinger is designed for installation at the discharge end of belt conveyors on various sand slingers and speed slingers. The Sand Slinger Magnet will protect workers in the area from the danger of fast flying pieces of iron which might normally injure him and it purifies the molding sand of any contamination.

The device is designed so that sand coming off the end of the belt at speeds of 375 f.p.m. in quantities up to 2,000 lbs. per minute impinges on the face of the magnetic assembly and then drops into a hopper where it is fed into the impeller head. But any geigers and other iron particles are quickly snatched up and firmly held by the magnetic deflectors. A magnetic element is contained in the vertical back assembly, and in the upper, horizontal plate.



The magnetic assemblies are covered in dust-tight housings to eliminate a collection of fine iron on the magnetic castings. Face plates which are exposed to continuously abrasive conditions may be removed and replaced without disturbing the magnetic portions of the unit. Brackets at each side can be easily adapted to various models of sand slingers.

Eriez Mfg. Co., Erie 6, Pa. (Item 32)

Safety Knife

A trigger action safety knife that can be carried in the pocket without danger of damage or injury is now available. The knife features a spring-action safety guard as an integral part of the knife itself. The guard is raised by pressure of the

finger upon the trigger or by pressing the knife against the material to be cut. Release of pressure immediately causes the guard to snap back in position concealing and protecting the blade.

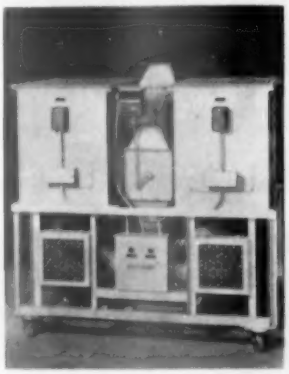
Made of die-cast zinc, and guaranteed to be unbreakable and rustproof, the knife is designed for use by mechanics, roofers, linoleum workers, carpenters, tinsmiths, etc. The blade is made of heavy-gauge quality Swedish steel and can be set in any of four positions for such length as may be desired. Each knife is equipped with five blades.

Flash Box Opener Co., 52 W. Houston St., New York 12. (Item 33)

Dehumidifier

An absorption type, heavy-duty dehumidifier suitable for use in factories, warehouses, storage vaults, and other large areas where controlled humidity is desired was recently announced. The unit is an automatically regulated dual-tower unit, using silica gel as the drying agent.

It is designed to maintain humidities as low as 10 per cent in areas up to 60,000 cu. ft. over a wide range



of temperatures. The machine has a dry air output of 150 cu. ft. per minute and is capable of removing 4 to 5 lbs. of water per hour. The machine features a newly designed motor-operated four-way valve which alternately directs the air from one silica gel tower to the other. As one tower is regenerated the other continues to dehumidify. Thermostats are used for control of the regeneration cycle, thus making the machine self-adjusting to atmospheric conditions.

The machine can be mounted on casters, and requires only standard electrical outlets. Suggested applications are in candy plants, refrigerated warehouses, dairies, fur and garment storage, electronic instrument areas, chemical laboratories, etc.

Dryomatic Corp., Alexandria, Va. (Item 34)

Face Mask

A face mask incorporating the wrap-around windshield idea is available. The mask offers great visibility and is said to dispel the feeling of claustrophobia. Non-fogging is assured by the circular air washing action of the cool air or oxygen supply. The plastic safety lens is very resistant to breakage. According to the manufacturer, because of greatly increased side and

forward vision, industrial employees can work longer with less fatigue, fire fighters perform emergency and rescue operations with greater safety, and aviators are able to wear the mask even while landing aircraft. A double lip seal makes the mask comfortable when worn for a long time—even over glasses. The mask can be put on with one hand, leaving the other free for use in emergency situations.

Scott Aviation Corp., Lancaster, N. Y. (Item 35)

Self-Sticking Alphabets

Various sizes of individual, self-sticking numbers and letters have been developed. Available in two colors, the numbers and letters are made of all-temperature impregnated cotton cloth with a temperature-resistant pressure-sensitive adhesive. They are mounted on handy

dispenser cards which protect the adhesive until used. They were developed as a simple, low-cost method of marking bays, posts, shelter areas, fire extinguishers, and other safety equipment. Signs and special safety messages can be put up in minutes. They can be used in the office and shop for identificaion, safety, and maintenance.

W. H. Brady Co., 727 W. Glendale Ave., Milwaukee 12. (Item 36)

News Items

David H. Dawson has been elected a director, vice-president and member of the executive committee of E. I. du Pont de Nemours & Co., Inc. Mr. Dawson has been with the company for 22 years and has worked in many of the company's departments. Prior to his election he was assistant general manager of the textile fibers department. He is a member of the American Chemical Society and has written a number of technical articles and has several patented inventions.

* * *

Micro Switch, a division of Minneapolis Honeywell Regulator Co., has announced a new plant will be built in Independence, Iowa. The plant is to be finished by late fall. The new facility will provide 8,000 sq. ft. of floor space, most of which will be available for production purposes.

* * *

Alan Wood Steel Co. has announced the purchase of the Steel Equipment Division of Penn Mutual Corp. of Pennsylvania. This division will be operated as the Penco Metal Products Division of Alan Wood Steel Co. This was announced by Harleston R. Wood, who will become president of Alan Wood Steel on August 1st. The division will continue operations in its present location in Philadelphia.

* * *

Announcement has been made by the Continental Can Co. of commencement of construction of a new one-story plant in Midland, Mich., for the manufacture of fibre shipping drums. The plant will be located on a 30-acre site and should be in production by December, 1955. The plant will manufacture fibre drums for the state's chemical and food industries. At the present time, the company operates five other fibre drum plants.

* * *

Joe E. Tracey, has been named Rocky Mountain representative for the Industrial Products Division of the Pioneer Rubber Co. Mr. Tracey, who has lived and worked in the Rocky Mountain area for 35 years, has been active in the fields of marketing, merchandising, advertising, and promotion. For 10 years, immediately prior to joining Pioneer, he served as advertising manager for the Frontier Refining Co., Denver. Mr. Tracey is the past president of both the Denver and Great Falls, Mont., advertising clubs.

The Gamewell Co. has announced the election of Einar W. Sundberg as vice-president, treasurer, and clerk. He was also elected treasurer of the Rockwood Sprinkler Co., and

the Eagle Signal Corp., an affiliated company located in Moline, Ill. Mr. Sundberg has been with Rockwood Sprinkler Co. since 1944. He is a member of the Boston Control of the Controllers Institute of America.

* * *

The West Coast plant of Durable Mat Co., has been moved from Seattle, Wash., where it has been located since 1923, to Santa Clara, Calif. The new plant is located at 755 Kifer Rd. The move was made in order to offer better service in the 11 Mountain and Pacific Coast States. A second plant, serving the states east of the Rockies, is located at Norwalk, Ohio.

R. D. Mulhall has been appointed Wisconsin sales representative for Protective Equipment, Inc., Chicago distributor of industrial safety equipment. Mr. G. J. Tresslar has been appointed sales manager of this organization.

* * *

MacWhyte Co., wire rope manufacturers, has recently moved into a new building. The new location is 188 King St., San Francisco. The company has West Coast warehouses located at Los Angeles, Portland, and Seattle.

* * *

Gordon T. Larson has been appointed vice-president of Oxy-Catalyst, Inc., Wayne, Pa. Mr. Larson was previously director of the Los Angeles Air Pollution Control District and has bone extensive research on the causes of smog. A

graduate of West Point Military Academy, he will work on the problems of providing equipment for practical control of air pollution.

* * *

The Pittsburgh Plate Glass Co. announces that construction work has commenced on their new research center near Pittsburgh. Two separate buildings featuring virtually all-glass exteriors are planned for the Glass Research Center. One will be the development and product control building, and the other the basic research building.

* * *

J. Clifford Thebaut has been appointed assistant general sales manager of the Neo-Flasher Manufacturing Co., Burbank, Calif. Mr. Thebaut, whose headquarters will be in Chicago, will supervise all rental and sales operations for the company. He was formerly district manager for 11 western states. The company manufactures battery operated warning lights.

* * *

The American Wheelabrator and Equipment Corp., Mishawaka, Ind., announces that it has changed its corporate name to Wheelabrator Corp., effective immediately. The company manufactures blast cleaning equipment, dust and fuel control equipment, and foundry equipment.

Tried the new, improved
SOL-SPEEDI-DRI?

- GREATER ABSORPTION than ever before!
- The most DUSTLESS oil and grease absorbent you can buy!

GET A FREE SAMPLE FROM
SPEEDI-DRI CORP.
Menlo Park, New Jersey

New all-purpose stretcher easily used where space is limited

Here's another use for the versatile new Haggard's all-purpose stretcher kit. No matter what type of stretcher you now have, you have need for the new Haggard. It does all the things any stretcher can do, plus many more. It is a complete unit ready for instant use anywhere. It is so compact that it fits into a car trunk. Lightweight, only 28½ pounds complete with case, blanket, first aid supplies, and accessories. It's such a totally new concept in utility, versatility and practicality that you should investigate it at once. See how easy it is to store, transport, and put to use. See all the advanced, needed features that make it a combination litter, fracture board, traction splint, and resuscitator. Compact, convenient, complete. Ask your MSco distributor for a demonstration or write Medical Supply Company, Rockford, Illinois. In Canada, Safety Supply Company, Toronto 2.

"TRAFFIC PANEL" TEST PROVES
DOLCOWAX
BEST FOR
LONG-LASTING FLOOR BEAUTY!

THE TEST— four sections of flooring, each panel prepared with a different floor wax. All panels subjected to heavy traffic . . .

THE RESULTS— The DOLCOWAX panel retained markedly finer lustre — its beauty actually increased with wear — and it retained scuff and scratch resistance to a greater degree.

DOLCOWAX premium quality floor wax is most economical in the long run. Ideal for "second coating" — the second coat integrates with the first . . . no "crawling" or "puddling" to prevent an even, uniform film.

IMPORTANT: The slip-resistance feature built into DOLCOWAX permits a soft, lovely finish with safety protection! Has Underwriters Laboratories approval, of course.

When preparing floors for waxing, use CINDET, the Dolge all-purpose cleaner, for more complete stripping of old wax film.

Write for literature; consult your DOLGE Service Man on your floor finishing problems.

FOR FREE SANITARY SURVEY OF YOUR PREMISES SEE YOUR DOLGE SERVICE MAN

dependable
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BONE-DRY
STEEL TOE
SAFETY SHOES

PROVEN...

18% SAFER !

Ask for proof!
Write for independent test results and complete illustrated folder of styles for every job.

BONE-DRY SHOE MFG. CO.
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There Is Always ONE Best

The Bergman SAFTY-SPANNER

Developed for the job by the man who use them daily.

3 SIZES
12" to 18"
1¼" to 2¼"
JAW OPENINGS

CAN'T SLIP OFF
WON'T DAMAGE VALVES
IT'S SPARK PROOF

Made of toughest aluminum-magnesium alloy, it's lightweight. Self-centers automatically for quick application. Operates up to 45° angle with positive fulcrum. 800# tested handle pressure. Withstands 5000# pressure at jaw hook.

Widely Used Wherever There Are Handwheel Valves

Sold in Canada By Safety Supply Co.
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Bergman SAFTY-SPANNER CO.
927 Butler St. Toledo, Ohio

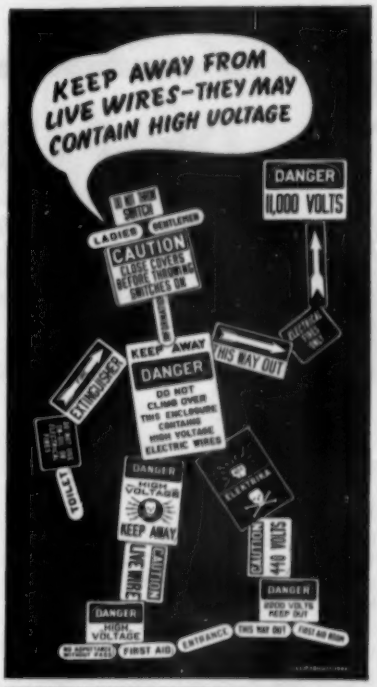
Honored by Chicago Technical Societies

THE AWARDS COMMITTEE of the Chicago Technical Societies Council has announced that Arthur R. Graham, supervising engineer of the Chicago District, Bituminous Casualty Corp., is one of four men to qualify for their annual merit award. He is a member of the Greater Chicago Chapter of the American Society of Safety Engineers, and was that organization's candidate for the award. In recognition of his unselfish and meritorious contribution during a 35-year career in safety, the merit award will be presented to him at a luncheon meeting on November 4.

As a member of the Greater Chicago Chapter of the ASSE, he has served as vice-chairman and general chairman. In the past two years he has been national and alternate national representative for the local chapter. He is currently serving as chairman of the School Safety Committee and vice-chairman for both the Engineering and Research and the Public Relations Committees.

He has been a delegate to five of the Presidential safety conferences in Washington, and also has served at the Governor's conference in Springfield. During and since World War II, he has instructed many special safety classes and conferences. He is a frequent speaker on safety before civic, school, church, and governmental groups. Graham is currently active in the development of an animated safety exhibit for the Museum of Science and Industry, and in the planning of the ASSE Chapter participation in the programming of educational TV station WTTW.

For more than 12 years he has served as chairman for the Society of Casualty Safety Engineers' annual small plant session of the Greater Chicago Safety Conference. For two years he served as president of the Society of Casualty Safety Engineers, as chairman of the fleet division of the Greater Chicago Safety Council and as general chairman of the Power Press and Forging Section of the National Safety Council.



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SAFETY SIGNS FOR ALL PURPOSES

STANDARD SIGNS, INC.
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COTTERMAN
WELDED STEEL SAFETY LADDERS
For Filing Rooms—Stock Rooms—Vaults

SAFE • STRONG • EASY TO MOVE • EASY TO CLIMB • NON-SKID STEPS

45"—5 Step

New improved design now being made from 1" diam. round furniture tubing.

Mounted on Swivel Brake Casters which allow the ladder to be rolled freely when no one is on it. When you step on the ladder the rubber cushioned legs rest on the floor and prevent rolling.

Made in 7 heights: — 18" 2 Step, 27" 3 Step, 36" 4 Step, 45" 5 Step, 54" 6 Step, 63" 7 Step, 72" 8 Step.

All are made in 18", 20" or 24" width. Send for Circular No. 55-N and prices on these ladders and our full line of Wood Rolling Ladders.

Manufactured by

I. D. COTTERMAN
4535 N. Ravenswood Ave. Chicago 40, Ill.

TRADE PUBLICATIONS

These trade publications will keep you up-to-the-minute on new developments in safety equipment and health products. All catalogs are free, and will be sent without obligation. Just circle publication number on the Reader Service Postcard.

1. Air Control Valves: Now you can have an all-air circuit that provides new standards of safety for air clutches and brakes on presses, brakes, shears, and similar machines: To do this manufacturer has developed several new valves—a non-tie down, a single stroke, and a palm button. When these valves are used in a circuit, two hand operation is required. This eliminates either hand being free during the machine cycle and assures greater operator safety. Bulletin gives you full details. Ross Operating Valve Co.

2. Safety Lenses and Glasses: Literature describes the new Enduron prescription lenses that synthesizes the advantages of thermoplastics and glass. Manufacturer states that many who have resisted wearing spectacles are pleased by the feather-weight comfort, shatterless, non-fogging, clearer-than-glass qualities. Safety thickness for industrial use; standard thickness for general wear, clear and tinted glasses available. Pioneer Scientific Corporation.

3. Work Clothes: An illustrated 8-page catalog features a varied selection of industrial apparel made of Du Pont Orlon and Union Carbide Dynel, which makes the clothing more resistant to deterioration by chemicals than natural-fibre fabrics. Includes laboratory reports on effects of specific chemicals. Resistall Work Clothes, Inc.

4. Step Platforms: Attractively illustrated folder shows many types of safety step platforms for low and medium heights. The rolling units with automatic position-locking devices have from 1 to 8 steps made of non-slip expanded metal gratings. Higher models have hand rails and platform rails. Ballymore Co.

5. Lens Cleaning Tissues: Literature describes lens cleaning tissues that cleans and no-fogs goggles, eyeglasses and welding lenses with the addition of water only. A lens cleaning station with bottle and sprayer are also featured. Sample included. Carhoff Co.

6. Elasticone Guide Pin Covers: Brochure describes and gives specifications on covers for guide pins for die sets to protect operator and guide pin. Central Safety Equipment Co.

7. Coupling Link: A coupling link that enables alloy chain users to make up their own sling and special assemblies is described in this bulletin. Called "Hammerlock," the link eliminates time now required to order and ship new or repair assemblies from the factory. The link will join hooks and large links to body chain. Columbus McKinnon Chain Corp.

8. "Safe-Tee" Solvent: How to clean electric motors with "Safe-Tee" Solvent is covered in technical bulletin. Fine Organics, Inc.

9. First Aid: Petroleum gauze dressings, packed in 1x36, 3x18, 3x36, and 6x36" strips are covered in this bulletin. Details on special applications to small burns and abrasions, finger and hand injuries are included. Chesebrough Mfg. Co. Cons'd.

10. Glove Patch Test: For industrial dermatologists, this patch test kit contains small skin-patch disks of Stanflex and Stanzoil liquid-tight gloves. With the kit, medical departments can discover if any personnel are allergic to the plastic or neoprene materials or glove linings. Pioneer Rubber Co.

11. Emergency Showers: Four heavy-duty models of emergency showers to provide a rinsing deluge of water for washing away splashed acid or for extinguishing clothing fire are described and illustrated in this 8-page brochure. Speakman Co.

12. Fire Protection Catalog: This 42-page architects and engineers catalog describes and illustrates a wide range of fire protection equipment: extinguishers and hose cabinets, hand extinguishers, firemen's tools, hydrant connections, valves, nozzles, fog nozzles, hose racks and reels, etc. W. D. Allen Mfg. Co.

13. High-Pressure Fog: A 16-page bulletin describes and illustrates several high-pressure fog fire-fighting units including stationary industrial models, motorized trucks, skid and industrial truck mounted. Also data on the fog principle of fire fighting and applications to many type of fire. John Bean Division.

14. Combustible Gas Detector: Bulletin describes a new improved portable gas indicator designed for the convenience of the operator. The J-W Sniffer Model G offers two new features: (1) Automatic battery cut-off which radically extends service life and prevents leaving instrument on unintentionally, (2) New fatigue-free sample-asperating system. Model G detector has circuit that maintains maximum filament sensitivity even in presence of leaded vapors: hermetically sealed indicating meter; easily replaced combination flame arrestor and filament assembly. Johnson-Williams, Inc.

15. Linemen's Safety Equipment: 32-page catalog shows complete line of clothing, belts, tools, and acces-

sories for linemen. Specifications given for all products and belts listed by occupation for which suited. Miller Equipment Co.

16. Safety Clothing: Line of gloves, aprons, coats, pants, etc. in asbestos, leather, flame resistant duck and plastic shown in 9-page catalog. Contains guide for use of clothing by occupation. Pulmosan Safety Equipment Corp.

17. Anti-Slip Floor Wax: This informative bulletin is designed to give the facts about a water-repellent, no-buff safety floor wax. Interesting question and answer format gives data on the wax and its ingredients; need for it; its characteristics, uses and application. E. I. DuPont DeNemours & Co., Inc.

18. "How to Care for Your Floors": A new illustrated booklet describes in detail long-range and day-to-day maintenance programs for all types of floors. There also is a section on suggested treatments for some of the most common floor failures such as loose tiles, yellowing, lack of water resistance, blooming and tackiness. S. C. Johnson & Son, Inc.

19. Wire Rope Slings: A 120-page manual gives complete up-to-the-minute data on wire rope slings, with hundreds of explanatory illustrations. Wickwire Spencer Steel Div., Colorado Fuel & Iron Corp.

20. Neoprene Cork Soles: Neoprene cork soles containing millions of tiny nitrogen-filled cells as protection against absorbing oil, water, etc., are covered in this bulletin. Details on the cooling, anti-slip, and light weight features are presented. Vul-Cork Div., Cambridge Rubber Co.

21. Rubber Safety Products: New catalog gives full details on how to select proper rubber safety products and cut maintenance costs. Shown are: gloves, aprons, sleeves, clothing, footwear and acid handling equipment. Miller Products Co., Inc.

22. Relax-A-Lator: Bulletin gives details for a new way to increase employee safety and efficiency. The Relax-A-lator is said to provide an invigorating pickup for everyone—particularly those suffering from fatigue or tired feet and legs. McDowell Mfg. Co.

23. Material Handling Devices: A complete line of material handling devices are fully illustrated and described in this catalog. Shown are: lifting clamps, twin lifters, drum lifters, drum tilters, hand grips, and drum openers. Merrill Brothers.

24. Pipe Identification System: A complete line of permanent vinylite labels that snap around pipes for positive identification are featured in this bulletin. Custom made to fit your needs: any color, wording, and size, available. Wilmington Plastics Co.

25. Head and Eye Equipment: Head and eye protective equipment—from safety spectacles to welders' helmets and goggles is presented in this booklet. The firm's full line of "Penoptic" safety products is covered. Pennsylvania Optical Co.

26. Fire Hose made of 100 per cent Dacron designed for applications in oil refineries and chemical plants, etc., is covered in an accessory catalog page. Featured in the literature is information on "Tuff-Weave" fire hose and its applications. Fyr-Fyter Co.

27. Explosion-Proof Switches are among the many types of switches and assemblies which are covered in six data sheets. Each data sheet contains descriptions and illustrations of a particular switch. Dimensional diagrams, charts of electrical ratings, prices, and conduit variations are also included. Micro-Switch.

28. Fire Extinguisher: One-hand operated, stored pressure, vaporizing liquid type "Redi-Grip" fire extinguishers are featured in bulletin. Illustrations and specifications of all models, data on available wall and vehicle types, and servicing information are included. Stop-Fire, Inc.

29. Steel Grating Materials: A 16-page data and specification manual covers all types of open steel floor grating, stair treads, vessel liners, bridge decking, floor armor and drain grates. Contains safe load tables, panel width constant charts, types of anchors, and uses of grating in industry, oil, chemicals, safety, transportation etc. Klemp Metal Grating Corp.

30. Machine Safety Guards: Guards which you can have made by your own workers to fit specific needs of your operations are described and illustrated in this bulletin. The bulletin illustrates means of fabrication while using only ordinary tools. Harrington & King Perforating Co.

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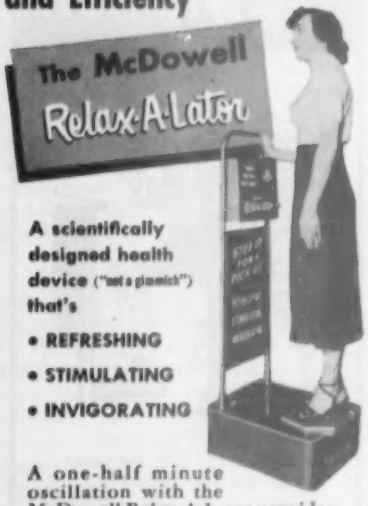

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Here's how it works—

Printed below are two identical Reader Service postcards—the bottom one for your use; the top one for later readers of this issue. The numbers listed on each card are keyed to product advertised and the new safety equipment and trade publications described on pages 137 through 147. Just circle the items you want to know more about, and we will ask the manufacturer to send you full information without obligation. Both cards are perforated for easy removal, and no postage is required.

New Safety Equipment

Products featured in this section have been carefully reviewed by Council engineers so as to bring you only what's new and reliable in the safety field. Only new safety and health products, or newsworthy improvements in existing equipment are eligible for listing.

Trade Publications

Here's a wealth of helpful trade literature—catalogs, spec sheets, booklets, brochures—that will help you compare **before** you buy. Whether you are in the market now, or think you may be at a later date, you'll want these valuable references in your safety equipment data file.

Products Advertised

As you read through this issue of the NEWS, you will find advertisements describing equipment that may help you solve some of your accident problems. Instead of making a "mental note," make sure you get full information by circling the corresponding page number on the Reader Service postcard. The letters L, R, T and B locate the ads on the page—left, right, top and bottom. IFC—inside front cover; IBC—inside back cover; BC—back cover.

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121T	121B	122L	122R	123L	123R	124T	124B	125T	125B	126L	126R
127T	127B	128L	128R	129T	129B	130L	130R	131L	131R	132	133LB
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PRODUCTS ADVERTISED:

IFC	1	3	5	6	9	11	13	15	16	41	43
45	46	47	49	51	53	55	57L	57R	58	61	63
65	67	69	71	73	75	76	77	79	80	81	83
85	89	91	92	93	94	98	96	97L	97R	98	99
100	101	102	103	104	105	106	107	108	109L	109R	110T
110B	111	112L	112R	113T	113B	114T	114B	119T	119B	120T	120B
121T	121B	122L	122R	123L	123R	124T	124B	125T	125B	126L	126R
127T	127B	128L	128R	129T	129B	130L	130R	131L	131R	132	133LB
133RT	133RB	134LT	134LB	134RB	135LB	135RT	135RB	136	144LB	144RT	144RB
145LT	145LB	145RT	145RB	147T	147B	148T	148B	IBC	BC		

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The advertising pages of the News

. . . your guide to reliable suppliers of worthwhile safety equipment

The advertising policy of the NEWS requires that all equipment and products meet established codes and standards, have the approval of recognized testing agencies, or have proven their value through actual use in industry. Council engineers and technicians screen every advertisement to make sure that product description is accurate, and performance claims verified by reliable sources. It should not be construed, however, that products advertised are approved or endorsed by the National Safety Council.

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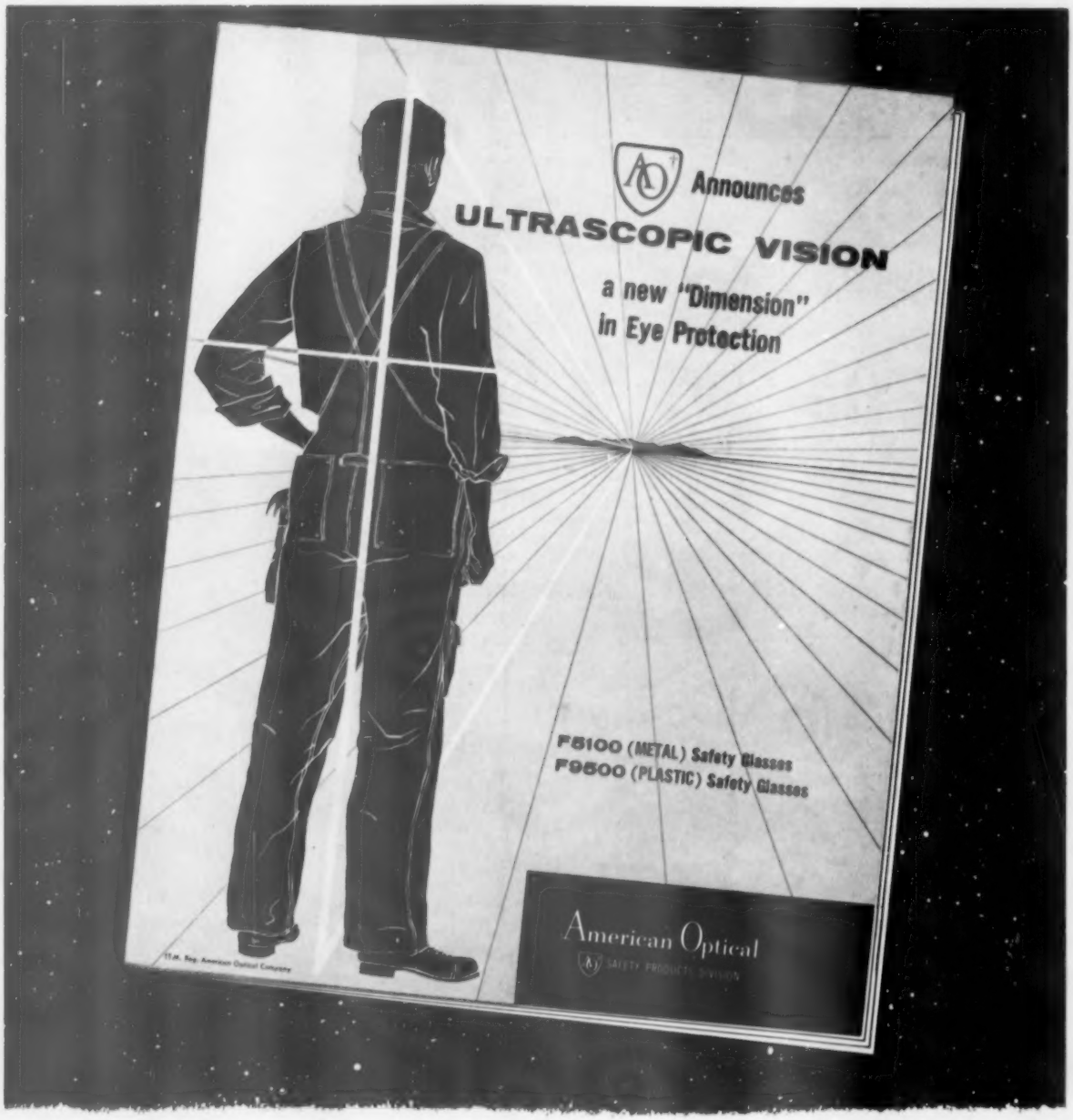

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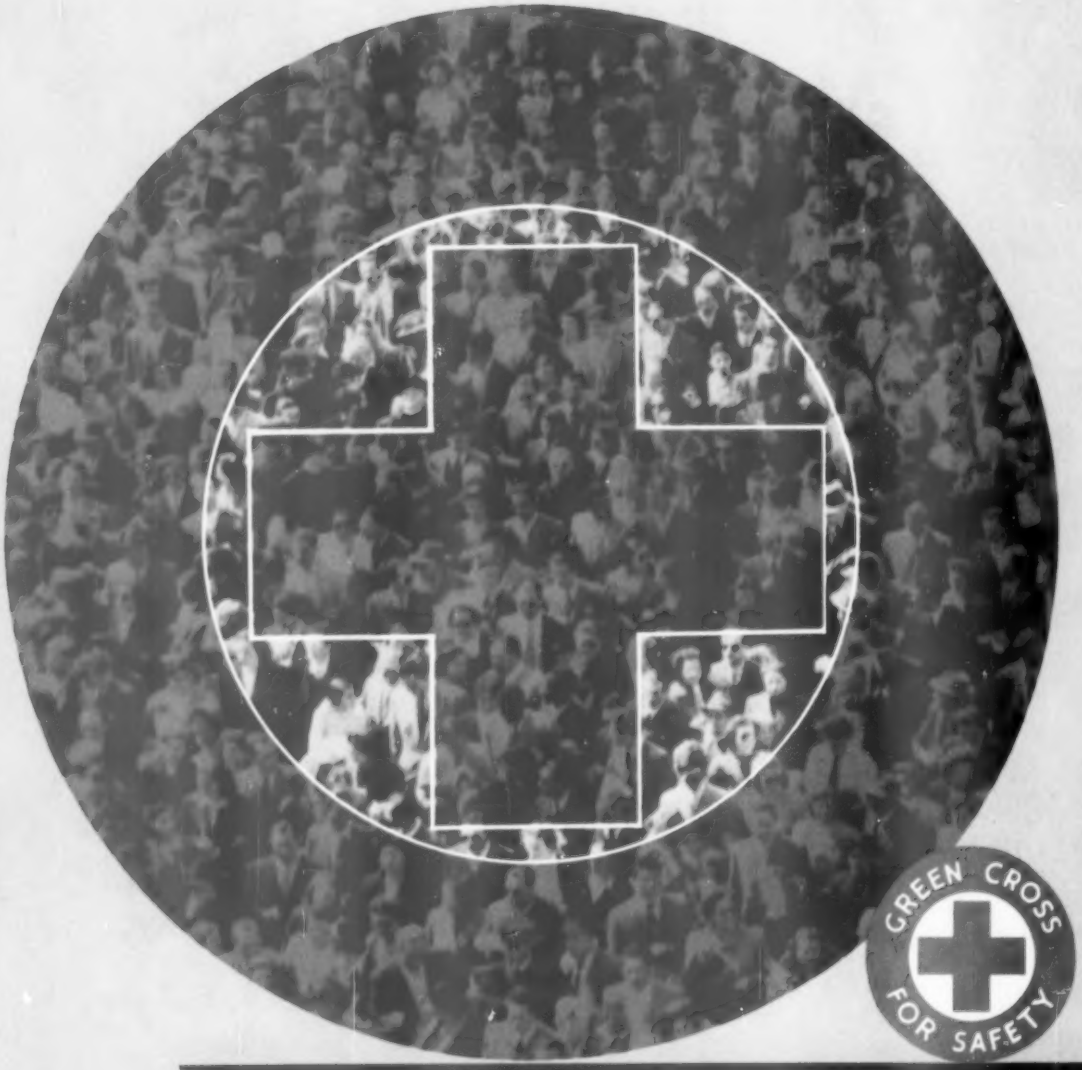


The Fight for Life

A REPORT ON THE 42ND YEAR OF THE NATIONAL SAFETY COUNCIL

National Safety News—Section 2
Chicago 11, Illinois
Vol. 72, No. 5, November 1955

Check Up Time

They say life begins at 40. But they also say that it's smart to have a thorough physical checkup when you reach that age.

The National Safety Council had its fortieth birthday a couple of years ago. So we decided it was checkup time for us, too. Not that the Council was ailing, but we figured that what's good for a businessman after 40 crowded years is good for an organization, too—especially one as big and complex as ours.

So we've spent a lot of time the past year thumping the Council's chest, testing its reflexes, taking its pulse, checking its vision.

Well, as we had suspected all along, the Council is in good shape—sound of body, high spirited, healthy, and (a medical oddity) still growing, even though it's past adolescence.

But of course any checkup that doesn't turn up some evidence of weak spots is open to suspicion that perhaps it wasn't tough enough. Our checkup was tough. It showed there was room for plenty of improvement.

It showed that while we had grown up to a fair size, we needed filling in here and there—physically, operationally and financially.

It showed that while we had thousands of wonderful friends, we needed still more.

It showed that while our resources kept the wolf from the door, we could stand more funds without becoming a fat cat.

It showed that while we had done many things we honestly believed had been helpful in holding down the accident toll, there were many, many more we hadn't been able to do, and which needed to be done. We found, for example, that we had outgrown our quarters. So we spent $185,000 to remodel and increase our space.

We found we were understaffed in many departments. So we added 30 new people to our payroll, bringing our total to 355.

We found that certain operations and responsibilities would be more efficient and economical if combined or separated. So we appointed a general manager and two assistant general managers, and completely revamped our accounting, treasury, records, field service, and membership departments.

We were impressed again and again during our checkup with the steadily growing interest of labor in safety. So the Board of Directors of the Council is preparing to establish the office of Vice-President of Labor of the Council, and a Labor Conference to advise on Council programs. To this same end, a staff division is being created.

We found that the Council had grown so big and so fast in recent years that the staff sometimes had a hard time knowing exactly who did what. So we started an in-service training and orientation program for all new people, supervisors and managers. And we wrote down in one big 75-page book the functions, objectives and operating principles of every department—so no one can ever lose sight of what our main jobs are.

You'll read the results of our year of self-appraisal in the pages that follow in this annual report. And we sincerely hope that as you visit Council headquarters, or write to us regarding some problem or service, or have personal contact with one of our staff, you'll notice more and more that the Council is geared to help one and all with every phase of accident prevention work.

That's the Council's job—service and leadership in preventing accidents. We pledge our best efforts to keep in the best possible condition to do this job.

Ned H Dearborn

NED H. DEARBORN
PRESIDENT

The killer still stalks the streets of our nation. He picks his victims at random: young children at play, skilled workers, retired people, whole families out for a pleasure ride, farmers in the fields.

What was the killer's record this past year?

For every hundred thousand persons in this country, he took the lives of 56. A total of 90,000 men, women, children fell before him. An awesome total of 9,050,000 escaped death but met with disabling bodily injury.

Where did the killer strike most often?

Streets and highways were his favorite grounds where 36,000 met death in motor-vehicle accidents. Homes were next where 27,500 died. Public places were third with 15,500 non-motor vehicle deaths. Work accidents in all places were fourth with a death toll of 14,000.

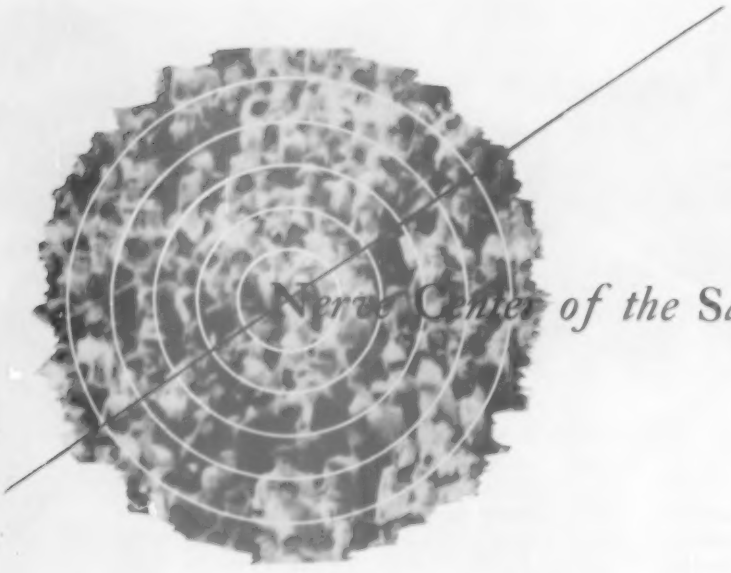
Why does this killer destroy so many of us? Because he has so many allies. So many people, who deplore his work, nonetheless aid and abet him. They refuse to believe that this killer will ever strike them or their loved ones. They do not recognize the inherent dangers of propelling a heavy motor vehicle at high speeds down crowded highways, and do not observe the precautions that this action dictates. They do not recognize the hazard of careless work habits and of hazardous work conditions. They are apathetic in the face of the threat this killer presents, and they refuse to act in unison against him.

Yet there are some of us who relentlessly fight the killer. We know his ways and recognize his weaknesses. And because we are aware of his great strength we have organized ourselves, to pool our resources, to fight him more effectively.

We are stopping the killer. Through our efforts, since 1913 we have saved an estimated 600,000 from him. In this past year alone we have reduced his death toll 7% in work accidents, 6% in motor-vehicle accidents, 5% in homes, and 3% in public places.

But the killer still stalks our nation, threatening the security and welfare of every home and family.

THE PROBLEM (1954 Figures)	THE PROGRESS (in the last year)
KILLED 90,000	**5% Reduction in Deaths**
1 every 6 minutes	
INJURED 9,050,000	**5% Reduction in Injuries**
1 every 3 seconds	
COSTS $9,800,000,000	**Death Rate in 1954 Reduced 7% . . . Lowest Rate on Record**
$18,500 every minute	



Nerve Center of the Safety Movement

If there were no National Safety Council undoubtedly one would be formed immediately! The need for such an organization is obvious. Accidents are a problem of primary national importance. And there must be a national organization with the single objective of combatting accidents. That organization is the National Safety Council.

The Council is non-profit, non-political, non-commercial. It has a federal charter (in recognition of its public service functions) but it is not a government agency nor does it receive any government appropriations. The Council derives all of its support from membership dues, sales of materials, and contributions from safety-interested individuals and organizations.

The main jobs and purposes of the Council are:

- To promote safety in all walks of American life.
- To collect, publish, and distribute educational and informative material related to safety methods and procedures.
- To arouse and maintain the interest of the people of the United States in accident prevention, and to encourage the adoption of safety methods.
- To organize and to conduct programs and conferences for the education of persons and organizations in safety methods.
- To organize and aid local and community safety councils throughout the United States, and to provide these councils with program guidance and materials.

To perform these jobs the Council uses the talents and resources of over 2,500 volunteer workers who serve on policy-making committees, advise the Council staff on technical matters, and contribute much technical and statistical information. In addition the membership of over 12,000 organizations, companies, and individuals works very actively to achieve the ends of the Council's program.

Working together, the Council officers, volunteer workers, staff of 355, and members are the nerve center of the Safety Movement . . . sensitive to the many dynamic factors that change the size and character of the accident problem . . . alert to new developments in accident prevention . . . and in touch with all strata of American life.

The chart on the next page shows the governing structure and membership composition of the National Safety Council. A staff organization chart is shown on pages 40-41.

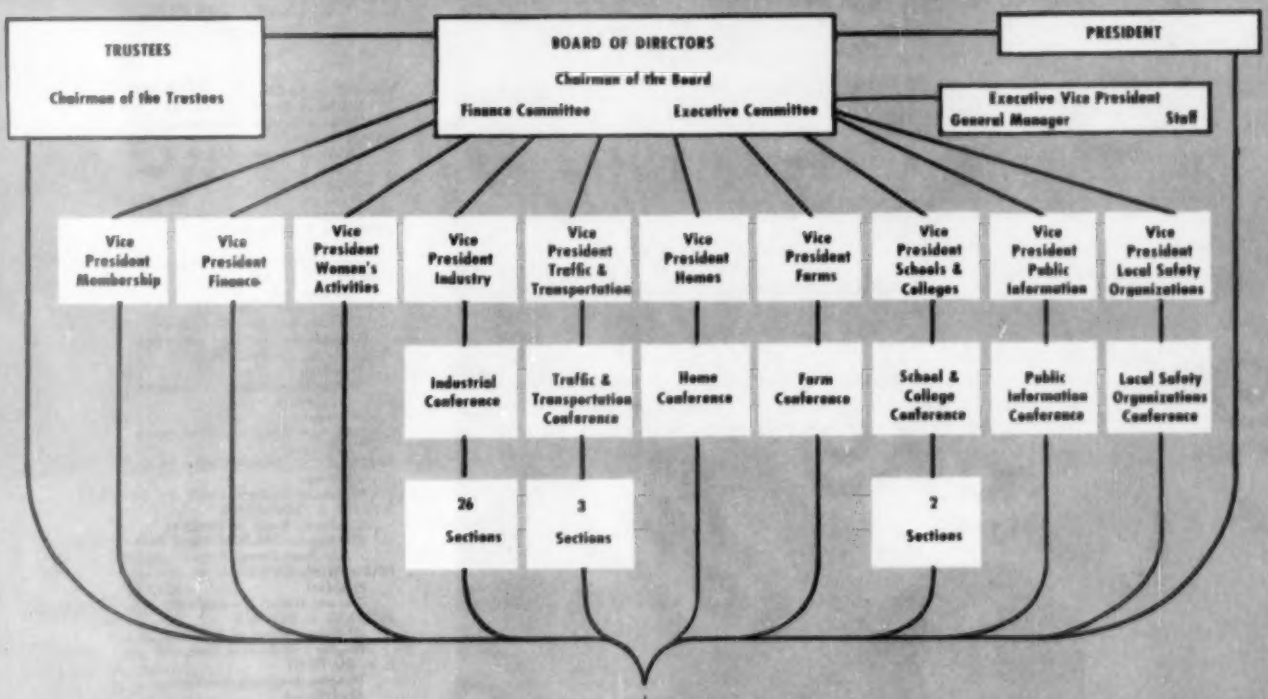
Through this network of volunteers workers and member organizations the Safety Movement reaches into every city, village, and rural area of the nation.

The man who delivers milk in your neighborhood, the pediatrician who looks after your children, the civic-minded man in the next block, the small business owner across the street—in brief, you and your friends and neighbors—are the Safety Movement.

The National Safety Council is indeed proud that for 43 years it has been the rallying point and information center for the forces for safety. At the same time, the Council humbly acknowledges that its strength—and in fact the entire strength of the Safety Movement—stems from the voluntary participation and active support of thousands of citizens from all walks of life.

The Safety Movement is a democratic people working together for the mutual good. The Safety Movement is living democracy in action.

THE COUNCIL'S STRUCTURE



THE COUNCIL'S 12,000 MEMBERS

INDUSTRIAL COMPANIES
4685 (with 25,000 plants)

TRANSPORTATION COMPANIES
736

FOREIGN COMPANIES
78

HOME GROUPS
217

RAILROADS
110

SCHOOLS
2,938

LABOR ORGANIZATIONS & LABOR DEPARTMENTS
118

ASSOCIATIONS
370

CONSTRUCTION COMPANIES
147

SAFETY ORGANIZATIONS
157 members
82 chapters

TRAFFIC AGENCIES
979

LIBRARIES
88

INSURANCE COMPANIES
187

HOSPITALS
969

FARM GROUPS
105

OTHER ORGANIZATIONS & INDIVIDUALS
439

The Trustees

...direct the special solicitation of funds from public or private sources to support the Council's general activities, and have authority over the disbursement of such funds.

1954-1955

"As chairman of the Council's Trustees, my primary responsibility is that of financing the public service work in traffic, school, home, and other fields of non-occupational safety. The country's accident record shows that this work is accomplishing results of such importance that I am convinced that, dollar for dollar contributed, business and industrial companies receive more tangible economic benefit from this work than from any other activity to which they are asked to contribute."

—W. S. S. Rodgers

chairman of the trustees

W. S. S. RODGERS
former Chairman
The Texas Company

vice chairman of the trustees

JOHN STILWELL
Yonkers, New York

secretary to the trustees

NED H. DEARBORN
President
National Safety Council

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WALTER P. REUTHER
President
Congress of Industrial Organizations

HERBERT E. SMITH
Member, Board of Directors, and former Chairman
United States Rubber Company

ARTHUR E. STODDARD
President
Union Pacific Railroad Company

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International Nickel Company of Canada, Ltd.

JUAN T. TRIPPE
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THOMAS J. WATSON
Chairman, Board of Directors
International Business Machines Corp.

C. E. WILSON
The Secretary of Defense

ROBERT W. WOODRUFF
Chairman, Executive Committee
The Coca-Cola Company

The Board of Directors

. . . is responsible for the general policies and program of the Council.

chairman of the board

E. F. DU PONT
Director, Employee Relations
E. I. du Pont de Nemours & Co.

"The Officers and Directors of the National Safety Council represent all facets of American life . . . all areas of accident prevention work. It is the purpose of this group of men and women to keep the Council responsive to the nation's needs in safety. In this past year much energy and effort has been devoted to appraising the Council's program. As a result, the Council has been strengthened where needed in order to effectively discharge its responsibility in the service of safety on a national basis."

—E. F. du Pont

vice chairman of the board

KIRK FOX
Editor, *Successful Farming*, Meredith Publishing Company

1954-1955

Officers of the National Safety Council are members of the Board of Directors. Other members are:

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Indiana Farm Bureau Cooperative Association, Inc.

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Delaware Safety Council

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Chamber of Commerce of the United States

T. N. BOATE
Manager, Accident Prvn. Dept.
Association of Casualty and Surety Cos.

NORMAN E. BORGERSON
Deputy Superintendent
Michigan State Dept. of Public Instruction

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Safety Director
Consolidated Edison Co. of New York, Inc.

E. J. BUHNER
Chairman of the Board
Silver Fleet Motor Express, Inc.

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Director
National Highway Users Conference

RAY CARR
Advertising Counsel
Portland, Ore.

JESSE CLARK
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Brotherhood of Railroad Signalmen of America

DR. ZENAS R. CLARK
Administrative Assistant
Wilmington Public Schools

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President
Greater New York Safety Council

JOHN M. CONVERY
Employee Relations Division
National Association of Manufacturers

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President
Kennecott Copper Corp.

ERNEST G. COX
Chief, Section of Safety
Bureau of Motor Carriers
Interstate Commerce Commission

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President
Massachusetts Bonding and Insurance Company

R. H. FERGUSON
Assistant Director, Industrial Relations
Republic Steel Corporation

WILLIAM M. GREENE
Director, Safety Commission
State of Connecticut

PAUL E. GURSKE
Director, Bureau of Labor Standards
U. S. Department of Labor

LEONARD HAEGER, AIA
Technical Director
Levitt and Sons, Inc.

O. R. HARTWIG
Consulting Safety Engineer
Portland, Ore.

DAN HOLLINGSWORTH
Manager
Oklahoma City Safety Council

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Supervisor
Virginia State Board of Education

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Director of Personnel Services
General Motors Corporation

JOSEPH M. KAPLAN
Secretary-Manager
Greater Los Angeles Chapter
National Safety Council

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Assistant Vice-President
Industrial Relations
United States Steel Company

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Cartersville, Ga.

MERWYN A. KRAFT
Director, Department of Personnel & Accident Prevention
American Transit Association

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Walter G. Legge Co., Inc.

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Vice President
Texas Employers' Insurance Association

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Industrial Gloves Company

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Quebec Asbestos Mining Association

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Bituminous Coal Operators' Assn.

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Manager of Safety
New York Central System

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Metropolitan Life Insurance Co.

WESLEY I. NUNN
Manager, Advertising Department
Standard Oil Company (Indiana)

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Manager, Manufacturers Sales
Goodyear Tire & Rubber Co.

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HARRY READ
Executive Assistant to the Secretary-Treasurer
Congress of Industrial Organizations

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Batten, Barton, Durstine & Osborn

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Superintendent of Safety & Welfare
Duluth, Missabe & Iron Range Railway Company

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Chief Engineer, Power Machinery Divn.
Minneapolis-Moline Company

P. L. SIEMILLER
General Vice President
International Association of Machinists

HONORABLE LEE E. SKEEL
Chief Justice
Court of Appeals of Ohio

LESLIE J. SORENSON
City Traffic Engineer
City of Chicago

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Manager, Accident and Fire Prevention
National Association of Mutual Casualty Companies

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President
Allis-Chalmers Manufacturing Company

RANDALL C. SWANSON
Farm Safety Specialist
University of Wisconsin

COL. W. L. TUBBS (ret.)
Assistant for Ground Safety
DCS/ Personnel
Hq., U. S. Air Force

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Assistant to the President
Consolidated Edison Company of New York, Inc.

MISS JUDITH WALLER
Director, Public Affairs and Education
National Broadcasting Co., Inc.

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Covina, California

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Duluth, Minn.

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Third Vice-President
Metropolitan Life Insurance Co.

E. L. WHEELER
President
Wheeler Protective Apparel, Inc.

DR. WILLIAM P. YANT
Director of Research & Development
Mine Safety Appliances Company

1954 *Overall Income and Expense by Major Fields of Activity*

Activity Finances--1954

Vice President for Finance
and Treasurer
WILLIAM H. LOWE
Treasurer, Inland Steel Co.

"The total cost of accidents to the nation in a year is something over nine billion dollars. To carry out its nationwide program for cutting down this terrific cost, the National Safety Council has about four million dollars a year to spend.

"The pages of this book tell what our program is, and we have set forth below the essential facts about the sources of the Council's income and the use we make of the money.

"Those responsible for the Council's financial stability are constantly studying ways and means of increasing our income and of getting the most good out of every dollar spent. We seek the support of every interested agency, so that the Council can more completely fulfill its responsibilities."

—William H. Lowe

WHO SUPPORTS THE COUNCIL PROGRAMS?

Essentially Industry & Business: manufacturing, motor, air, and rails transport, insurance, public utilities, mining and other industries. Most of this support is direct, but in some instances it is through business associations.

Government: federal, state, and local. In most cases, government support simply reflects use of occupational safety materials. In a few states, Council services are used by state insurance funds. Government agencies do not contribute or make grants to the Council.

Other Sources: lesser sources of financial support include associations, school groups, public service organizations of both a public and private nature.

WHY DO THEY SUPPORT THE COUNCIL?

To Get Council Services which are useful in their own activities and which help to reduce their accident costs.

To Support Council Programs especially in the traffic, school, home, and farm areas. Programs in these areas are not self-supporting, yet are vital to the public welfare. Contributive support by business organizations makes these programs possible.

WHAT ARE THE SPECIFIC SOURCES OF 1954 INCOME?

Membership Services	
Membership Dues	$1,028,000
Sales of Additional Publications	2,003,000
Advertising	256,000
Congress	107,000
Other	66,000
Total	$3,460,000
Public Service	
Contributions	583,000
Grand Total	$4,043,000

Every major field of activity receives some support from all or most of the sources listed above. For example, the traffic program—which depends primarily on contributive support—also has some income from dues and publications, and smaller amounts from advertising and Congress fees.

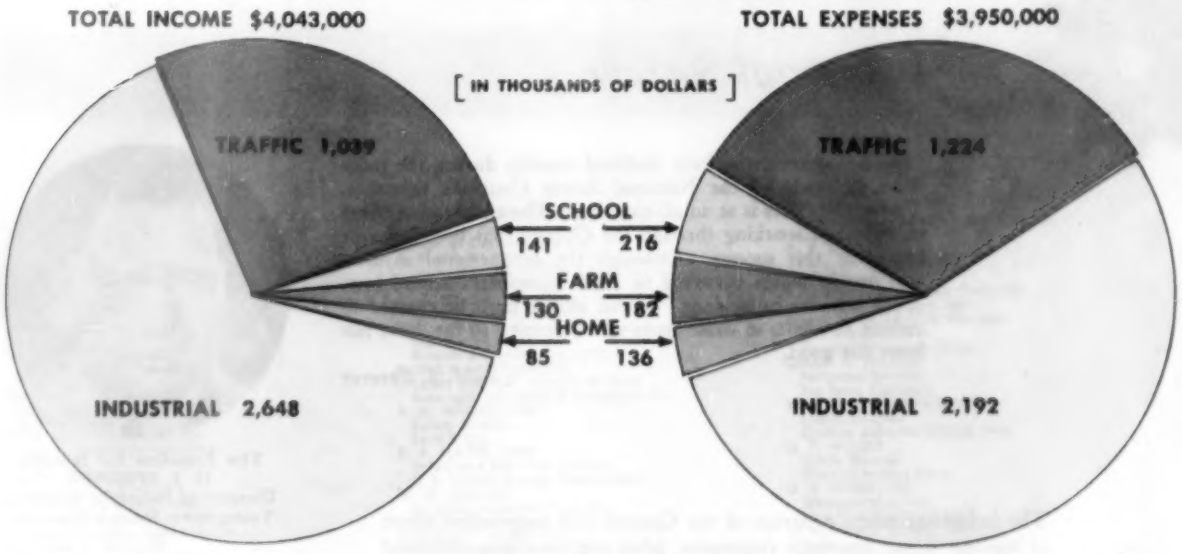
When the income attributable to one field and the Trustees' allocations of available contributions are not adequate for the necessary programs in that field, the Board of Directors may allocate surplus income from another field. This refers essentially to the dues and sales income in the occupational field (including insurance and motor transportation), a portion of which is made available for the public service programs (traffic, home, etc.).

CHAPTER FINANCES

The National Safety Council does not share in the contributions made to its Chapters. Chapters are autonomous, raising and expending their own funds. Amounts paid to the National by the Chapters reimburse the National only in part for materials and other direct services.

Charts 1 and 2 show income and expense for the five major fields of Council activity.

1954 *Overall Income and Expense by Major Fields of Activity*



EXPLANATORY NOTES

As can be seen from the charts above, the expense involved in conducting programs for traffic, farm, home, and school safety exceeds the income from these areas. The surplus available in the industrial field is used to pay these deficits, reflecting the vital interest of business and industry in off-the-job safety and public service projects.

The Council's work in the motor transportation industry is included in the traffic category on these charts. Motor transportation activities income exceeds expense; this has the effect of producing a smaller deficit for the entire traffic program than would otherwise be the case.

Allocations of income and expense into the five major program fields shown above are on an approximate basis only. However, it is the result of careful study and portrays a substantially accurate picture of the Councils' activities. The regular financial reports, duly audited, are published each year in May; copies may be secured on request.

MAJOR ITEMS OF EXPENSE

In this analysis the expense charge to each of the program fields is made up of several different kinds of items. First, in each field there is a staff department or division of professional people with the "know-how" necessary to prepare technical reports, work with volunteer groups, and represent the Council in cooperative work with other organizations. Travel is an important expense in connection with this professional staff.

The work of the Council's Public Information and Field Service Departments, and its Women's Activities Division, augments the work of the program groups. As important facets of the overall Safety Movement, these areas have appropriate officers, conferences, and committees. But the ultimate effect of their work is in terms of the major program fields shown above. Consequently the expense (as well as any income) of Council work in these areas has been allocated on a proportionate basis to the five areas shown above.

Each program field is also dependent for certain important service on other staff units: the Membership Department, responsible for selling and servicing memberships and services; the Records Division, responsible for invoicing, subscription and sales records, sales analysis and other tabulations, and the Service Department, responsible for stenographic and clerical work, printing, and the stocking and shipping of materials.

Large printing and publishing expenses are also incurred as part of the Council's work in the various program areas. And there are overhead expenses similar to those faced by all organizations: office rent and related costs, employee welfare and benefits, and general staff administration costs.

Thus the specific departmental staff in any one of the program departments represents only a fraction of the total expense incurred to promote that phase of safety. The corollary and supplementary expenses as included here are a necessary part of each program.

★ ★ 1955 BUDGET ★ ★

The total income budget for 1955 was estimated at $4,324,000. The expense budget was set at $4,322,000, plus an authorization by the Board of Directors to spend the major part of the 1954 excess of income over expense as an addition to the 1955 expense budget for much-needed expansion of the Council's programs. This gave a total estimated expense of $4,410,000 for 1955.

Industrial Safety

"Industrial accidents have declined steadily during the more than 40 years of the National Safety Council's existence. The current rate is at an all-time low. The cooperative effort of industry, working through the Council, has been a major factor in this success. Although the occupational injuries and deaths which occurred in 1954 represent a record low, much remains to be done. Special efforts must be exerted to reduce accidents in those areas where results, so far, have not been too good."

—H. J. Spoerer

Vice President for Industry
H. J. SPOERER
Director of Industrial Relations
Youngstown Sheet & Tube Co.

The industrial safety program of the Council is a cooperative effort of business firms, insurance companies, labor organizations, technical societies, and state and federal agencies. The goal of the program is the reduction of accidents in all types of business and industrial operations.

Council industrial safety services are used by over 6,000 business firms with operations in over 25,000 locations and with a combined employment of over 10 million. A total of 503 new industrial members were enrolled in the first seven months of 1955.

The Industrial Department Staff consists of safety engineers, editors, writers, industrial hygienists, and clerical help—a total of 27 people. Approximately 123 people in other Council departments (such as membership, statistics, etc.) are directly connected with the industrial program, making a total of 150 people working in this area. The total income for the industrial program in 1954 was $2,648,000 while this program's expenses amounted to $2,192,000.

As is the case in other Council departments and divisions, the work of the staff is heavily augmented by that of volunteer workers. An estimated 1300 representatives of member organizatons participate in the planning and development of the industrial program through service on the Industrial Conference and Executive Committees of the 26 Industrial Sections.

A measure of the contribution made to the Safety Movement by these volunteers can be seen in the fact that in the year they traveled over a half million miles to attend 100 Council-sponsored meetings and conferences. Thousands of additional manhours were spent in developing data sheets, posters, safetygraphs, and other technical materials.

INJURY RATES AND STATISTICS

For the eighth consecutive year the injury rates of Council members showed a reduction in 1954:

- Injury frequency rate reduced 3 per cent from 1953.
- Injury severity rated reduced 4 per cent.
- Injury frequency rate of Council members about 60 per cent lower than that of non-member industrial plants.

The national accident toll however (10,200 killed and 1,540,000 injured in non-agricultural accidents) also showed a decrease in 1954 from 1953.

This past year the Council received nearly 8,500 accident summary reports from business concerns, a record number. These formed the basis for the Accident Rates Pamphlets which present accident data

INDUSTRIAL CONFERENCE
1954-55

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VICE CHAIRMAN
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Aetna Casualty & Surety Co.

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Executive Secretary
National Sand & Gravel Assn.

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American Standards Assn.

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Safety Manager
Merck & Co., Inc.

R. G. D. ANDERSON
General Manager
Industrial Accident Prevention Assns. of Canada

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Compensation and Safety
Bethlehem Steel Co.

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Illinois Manufacturers Assn.

H. S. BAUCOM
Director of Safety
North Carolina Industrial Comm.

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Safety Supervisor
Hughes Aircraft Co.

RICHARD O. BENNETT, Dir.
Automotive Division
Nat. Assn. of Automotive Mutual Insurance Companies

THOMAS J. BERK
Safety Consultant
Safety and Occ. Health Bureau
Metropolitan Life Insurance Co.

PETER J. BERNARD
Dir. of Personnel and Safety
H. Wolff Book Mfg. Co.

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Health and Safety Dept.
Allis-Chalmers Manufacturing Co.

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Jabez Burns & Sons, Inc.

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Divn. of Industrial Safety
Dept. of Industrial Relations
State of California

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Middletown Hospital
Middletown, Ohio

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Director of Research
National Board of Fire Underwriters

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Western Pennsylvania Saf. Council

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Vice Pres. of Accident Prevention
Employers Mutual Liability Ins. Co.

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Council on Industrial Health
American Medical Association

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Consol. Edison Co. of N. Y.

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Director of Safety
B. F. Goodrich Co.

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Safety and Compensation
Pullman Company

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Safety Assistant
Stanolind Oil & Gas Co.

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Soil Building Divn.
G. L. F. Exchange

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Safety and Fire Prevention
Eastman Kodak Co.

PETER CONTARDO, Saf. Dir.
John A. Roeblings Sons Corp.

L. CORBEIL
Safety Supervisor
Trans-Canada Airlines

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Manufacturing Dept.
Virginia-Carolina Chemical Co.

WILLIAM N. COX, JR.
School of Industrial Engineering
Georgia Institute of Technology

GLEN D. CROSS, Director
Safety and Supervisory Training
The Firestone Tire & Rubber Co.

F. H. DEEG, Saf. Engr.
Natl. Assn. of Mutual Casualty Cos.

J. B. DE LAUNE
Plant Protection Superintendent
Cities Service Refining Corp.

RUSSELL DE REAMER
Manager—Safety Services
General Electric Co.

NIXON DE TARNOWSKY, Saf. Engr.
F. & M. Schaefer Brewing Co.

C. T. DE WITT
Supt. of Safety
Northern Pacific Ry.

JOHN A. DICKINSON, Head
Safety Codes Group
National Bureau of Standards

T. R. DONOGHUE, Manager
Safety and Plant Protection
Pittsburgh Plate Glass Co.

R. P. DOUGLAS, Safety Director
The Detroit Edison Co.

H. B. DUFFUS, Administrator
Accident Prevention
Westinghouse Electric Corp.

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Daniel Woodhead Co.

DR. J. DUKE ELKOW, Professor
Dept. Health and Phys. Education
Brooklyn College

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General Manager
American Trade Assn. Executives

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Director of Safety
United States Steel Corp.

R. H. FERGUSON, Asst. Dir.
Industrial Relations
Republic Steel Corp.

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Southern California Edison Co.

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Safety Director
Celanese Corporation of America

WILLIAM B. FOLGER
Executive Director
N. Y. State Insurance Fund

F. J. FORESMAN
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Pittsburg & Midway Coal Mining Co.

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Industrial Div.
Natl. Assn. of Mutual Casualty Cos.

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Phelps Dodge Corp.

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Wisconsin Council of Safety

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Rayonier, Inc.

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Safety and Fire Protection
Monsanto Chemical Co.

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U. S. Rubber Co.

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Director of Safety
Dravo Corp.

JAMES J. GRIFFIN
Coordinator of Safety
Chicago Public Schools

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Accident Prevention Dept.
Assn. of Cas. & Surety Cos.

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Superintendent of Safety
St. Louis-San Francisco Ry. Co.

H. E. HAMM, Saf. Dir.
County of Los Angeles

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Fidelity & Casualty Co. of N. Y.

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Safety Engineer, Long Lines Dept.
American Telephone & Telegraph Co.

R. A. HARSCHNEK
Safety Director
Swift & Co.

D. F. HAYES, Chief
Safety and Fire Prot. Branch
U. S. Atomic Energy Commission

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Owens-Illinois Glass Co.

HAROLD I. HEMPHILL
Safety Director
AiResearch Manufacturing Co.

DALLAS E. HENRY
Safety Coordinator
Southern Advance Bag & Paper Corp.

EDWARD A. HESSMER
Safety Director
Oliver Corp.

ERNEST L. HOOD
Director, Safety and Training
C. Brewer and Co.

MRS. BERNARDINE HOLMAN, R.N.
Director of Nursing
Employers Mutual Liability Ins. Co.

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Jones & Laughlin Steel Corp.

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Atomic Energy Project
School of Medicine and Dentistry
University of Rochester

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Industrial Safety
International Harvester Co.

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Safety, Ind. Rel.
Frigidaire Divn.
General Motors Corp.

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Director of Personnel Services
General Motors Corp.

H. T. JAYNE
Safety Supervisor
Philadelphia Gas Works

R. L. JENKINS, Chief
Safety Division
Office of Chief of Engineers
U. S. Army

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Vice President and Manager
Engineering Dept.
American Mutual Liability Ins. Co.

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New Haven Trap Rock Co.

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Div. of Safety and Hygiene
Industrial Commission of Ohio

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HARRY X. KELLY, President
Delta Line

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Assistant Vice President
Industrial Relations
United States Steel Corp.

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System Safety Supervisor
Appalachian Electric Power Co.

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General Engineering Works

E. B. LANDRY
Director of Safety and Health
U. S. Post Office Department

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Safety Director
Portland Cement Association

R. C. LEITNER
Supervisor, Industrial Relations
Libby McNeill & Libby

HAROLD F. LILLIE, Director
Lansing Safety Council

G. STUART MANSFIELD
Director of Safety
Western Printing & Lithographing Co.

WILLIAM G. MARKS, Director
Safety and Motor Vehicle Divn.
U. S. Department of Commerce

MARION E. MARTIN
Commissioner of Labor and Industry
State of Maine

C. P. McBRIDE
Personnel Manager
Pabst Brewing Co.

E. C. McFADDEN, Vice President
Texas Employers Ins. Assn.

JOHN H. McKENZIE, Manager
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General Petroleum Corp.

CHAS. A. MILLER
Personnel Division
The Texas Company

WALTER E. MONTGOMERY
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J. HOWARD MYERS, Director
Safety and Fire Prevention
The Atlantic Refining Co.

J. E. NICHOLS
Safety Director
Reynolds Metals Co.

GEORGE F. NUERNBERGER
Safety Engineer
A. B. Dick Company

GEORGE P. O'ROURKE, SR., President
O'Rourke Construction Co.

JOHN E. PAGNARD
Safety Coordinator
City of Columbus

A. F. PAGNOTTA
Safety Engineer
North American Aviation, Inc.

R. N. PAPICH
Safety Consultant
American Gas Association

E. D. PEELER, JR.
Safety Director
General Shoe Corp.

CARL J. PETERSON
Staff Safety Engineer
Chrysler Corp.

M. C. M. POLLARD
Director of Safety
National Gypsum Co.

J. S. QUEENER, Manager
Safety and Fire Protection Div.
E. I. du Pont de Nemours & Co.

GEORGE DEWEY REED
Safety Engineer
Lansing Employers Underwriters

H. F. REINHARD, Manager
Safety Codes Dept.
Union Carbide & Carbon Corp.

HOWARD RIEFENSTAHL, Saf. Dir.
Alpha Portland Cement Co.

W. H. ROBERTS
Superintendent of Safety
Chicago & North Western Ry.

JOHN D. ROGERS, Vice President
Esso Shipping Co.

ROBERT T. ROSS
Manager, Employee Services
Ford Motor Co.

R. C. SABENS
Superintendent of Safety
N. Y., Chicago & St. Louis R. R.

GORDON P. ST. CLAIR, President
Medical Supply Co.

H. W. SCHILLING
Safety Engineer
Trans World Airlines

CLYDE SCHLUETER
Manager, Accident Prev. Dept.
Employers Mutual Liability Ins. Co.

W. J. SCHUSTER
Safety Director
Hanna Coal Co.

ROBERT S. SCOTT, Saf. Dir.
Mfrs. Assn. of Montgomery Co. (Pa.)

H. S. SIMPSON
Manager—Safety
Caterpillar Tractor Co.

W. S. SMITH
Director of Safety
Ford Motor Co.

S. F. SPENCE
Director, Safety and Fire Prevention
American Cyanamid Co.

ALEX SPINK
Director, Health and Safety
Kingan & Co.

MRS. JAY STANLEY, R.N.
Union Carbide & Carbon Corp.

GEORGE H. STEEL
Safety Director
Ralston Purina Co.

LILLIAN STEMP
Industrial Consultant

(Continued on page 10)

(Continued from page 9)

REUEL C. STRATTON, Asst Supt.
Engineering and Loss Control Div.
Travelers Insurance Co.
FRED R. TEMPLE, Saf. Supr.
Convair
Div. General Dynamics Corp.
COL W. L. TUBBS (Ret.)
Assistant for Ground Safety
Hq., U S. Air Force
A. F. TYRA
Head of Safety Div.
Industrial Relations Dept.
Union Carbide & Carbon Corp.
M. G. VAN BUSKIRK, Exec. Secy.
Illinois Dairy Products Assn.
FRANCIS H. WAGNER
Director of Safety
The Mead Corp.
LEA P. WARNER, JR.
Personnel and Safety Manager
Warner Company
C. H. WEISER
Covina, Calif.
J. T. WILLIAMS
Safety Engineer
Bunker Hill & Sullivan Mining & Concentrating Co.
W. O. WILSON
Manager of Safety
Standard Oil Co. (Ind.)
E. C. WOODWARD
Safety Director
A. O Smith Corp.
DR. W. P. YANT, Director
Research and Development
Mine Safety Appliances Co.
JOHN W. YOUNG
Consultant, Industrial Safety
International Harvester Co.
CHARLES R. ZESKEY, JR.
Chief Engineer
T. H. Mastin & Co.
CARLTON L. ZINK
Research Engineer
Deere & Co.

for 40 major industries and about 150 minor industries.

Much new data on industrial accidents was included in the 20 pages analyzing occupational accidents in the 1955 edition of *Accident Facts*. New material was included on injury rates for newly employed workers, injuries to office workers, and injuries to warehouse workers.

CONTESTS AND AWARDS

During the past year about 8,500 company and plant records were analyzed under the Council's Industrial Award Plan, which provides recognition for perfect safety records and for significant reductions in injuries. A total of more than 1,990 awards were made under this plan:

- 1,249 awards for perfect safety records (no lost-time accidents)
- 741 awards for outstanding non-perfect safety records.

More than 5,000 business units also participated in the Council's Section Safety Contests, in which companies in the same industry compete for best safety-record honors. One thousand seven hundred and sixty eight awards were made to participants in these contests. The number of Section contests now totals 22, with two new contests (for barge and towing vessels, and for hospitals) initiated.

PUBLICATIONS

Two major publication projects were completed this past year.

The third edition of the *Accident Prevention Manual for Industrial Operations* was published in October. This edition represents an extensive revision of the previous edition, with 17 chapters added, making a total of 43.

The *Supervisors Safety Manual*, a 400-page book, contains 13 chapters with comprehensive coverage of all aspects of accident prevention from the supervisor's point-of-view.

Other publications completed include:

- *Safety Manual for Marine Oil-Fired Boilers;* 66-page manual covering safe boiler operation and maintenance.
- *Accident Preventers;* five additional leaflets have been added to this series of illustrated safety pointers for employees.
- *Book 5, Foremen's Five Minute Safety Talks;* another in the series of suggested talks for foremen on all phases of accident prevention.
- *It's Your Vacation;* an illustrated eight-page booklet dealing with vacation hazards.
- *Don't Make an Ash of Yourself;* a 16-page booklet for employees on fire prevention.
- *Mining Accident Preventers;* a series of four illustrated booklets on preventing falls of ground in mining operations.

- *Heads You Win;* a 16-page "attitude" booklet.
- *It Can Happen to You* (Safetygraph 29); another in the series of illustrated safety instruction charts, this one on mining hazards.
- *Data Sheets;* 12 new ones published, 18 revised, 80 reviewed and reprinted in more readable type face.
- *Safe Practices Pamphlet;* three revised and reprinted.
- *Safety Instruction Cards;* 43 new ones published and three revised.
- *Special Industry Poster Sets;* series of 12 posters were produced for gas utility companies, for the mining industry, and for marine operations.

In addition to the new and revised publications listed above, five monthly magazines are published as part of the industrial program. These are: *National Safety News, Industrial Supervisor, Safe Worker, Safe Railroader,* and *Safe Builder.* The combined circulation of these magazines exceeds 650,000 per month.

Twenty-eight monthly newsletters are also published as part of the industrial program, a newsletter for each of the Industrial Sections. These have a combined monthly circulation of 41,000.

In the past year a new method of reviewing technical publications for the industrial program was established, which will both speed up the process involved in getting these publications into print and will assure more complete appraisal of the content by authorities in industry.

TRADES AND SERVICES COMMITTEE

To study the accident problems in the areas of merchandising, warehousing, hotels, restaurants, office and public buildings, and to develop special safety aids for these types of operations, a Trades and Services Committee was established. A safety engineer with experience in merchandising operations was added to the Industrial Department staff to coordinate the work of this Committee. Surveys of the needs in these operations were undertaken, and three new newsletters for these operations were initiated—an edition for hotels, restaurants, and mercantile establishments.

OFF-THE-JOB SAFETY

An Off-the-Job Safety Bulletin, designed to aid industry develop more effective campaigns in this area, has been initiated. A special section dealing with the subject was also started in the *National Safety News.* Twelve of the Industrial Sections have established committees on off-the-job safety.

NATIONAL SAFETY CONGRESS

Definite rules were established for the programming of industrial sessions at the National Safety Congress in order to avoid possible duplication of subject-matter and schedule difficulties. Subjects of general interest will be developed with the aid of the American Society of Safety Engineers, and these sessions will be held in the mornings. Specialized and technical subjects will be sponsored by the Industrial Sections, and will be held in the afternoons.

Arrangements were also made to provide free space at the Congress for scientific and educational exhibits by organizations in safety and related fields.

SMALL BUSINESS PROGRAM

The Council's Small Business Program is aimed at the promotion of safety in small, independent firms. Financed by a special grant, this Program works with trade associations, chambers of commerce, service clubs, and other organizations of business men. Activities in connection with this Program include:

- Consultation and program advice provided to

trade associations and others interested in small business safety work.

- Special sessions at the National Safety Congress each year for association executives and members of association executive committees.
- An Association Safety Newsletter sent quarterly to 700 organizations in a position to reach and to help small firms.
- An Association Award Program to provide recognition to associations whose safety programs meet high standards of achievement.
- Special surveys and statistical studies for associations and other organizations wishing to establish safety programs.

CODES AND STANDARDS

The Industrial Department, through staff assignment and through volunteer service of members representing the Council, maintains close liaison with the American Standards Association in the development and promotion of safety standards and codes.

The Council is directly represented by staff members on six American Standard Association coordinating boards and policy groups.

Sixteen American Safety Standards and Codes are sponsored or co-sponsored by the Council, including two which were published this past year. Seven other codes are in process of development or revision.

The Council is represented on the Section Committee of 58 Safety Codes and Standards being developed under the American Standards Association procedure.

AMERICAN SOCIETY OF SAFETY ENGINEERS

The American Society of Safety Engineers, the independent organization for professional industrial safety engineers, shares office space with the Council and is closely associated with the Council's industrial program.

ASSE Chapters, for example, prepare many of the Council's research and safety engineering publications. ASSE also co-sponsors the general safety subject sessions at the annual National Safety Congress. Local chapters of ASSE likewise render valuable service to local safety councils in the sponsorship of local safety conferences.

The Council participates in the financial support of ASSE in recognition of the importance of the professional society to the industrial safety movement.

ASSE prepares its own annual report to its members but of interest is this brief summary of ASSE's program during the past year:

- 6,500 members; a continued increase in new members over last year.
- 59 local ASSE Chapters, one new chapter chartered in 1955.
- Chapters completed 14 data sheets for the Council.
- 40 data sheet projects for the Council in process of development in local chapters.
- Five research projects still in work for financing.
- The Albert D. Caddell Award for chapter achievement presented to Western Pennsylvania Chapter.
- Honorary memberships in ASSE awarded to three distinguished men: Clarence H. Weiser, Sidney J. Williams, William P. Yant.

SAFETY TRAINING INSTITUTE

The Council's Safety Training Institute offers courses in industrial safety to representatives of member and cooperating organizations.
In the past year the "Fundamentals of Industrial

Safety" course was given five times to a total of 160 people. The "Safety Management Techniques" course was given twice to a total of 58 people. A special course on safe practices in public utilities operations was given for 25 persons.

A safety training course was held at the Georgia Institute of Technology this past year, in co-operation with the American Society of Safety Engineers and the Atlanta Safety Council. This course served as a pilot study to the possible extension of the Fundamentals course to various communities for persons who cannot conveniently travel to Chicago. Since 1946, when industrial safety training was first undertaken by the Council, more than 1,600 people —from all States of the Union and Canadian Provinces, as well as from many foreign lands—have completed one or more of the courses.

PUBLICIZING INDUSTRIAL SAFETY

Newspapers, business and trade magazines, company publications, and radio and television networks all gave liberally of space and time to industrial safety materials.

Thirty specialized magazines were awarded the Council's Public Interest Award in recognition of their especially complete coverage of accident prevention topics.

Representatives of 50 trade magazines attended the National Safety Congress, and special stories on Congress programs and Congress speakers were mailed to more than 400 trade magazines.

The Mining Section's National Campaign to Reduce Falls of Ground was publicized with feature-length releases of all leading mining journals. A kit of newspaper releases and radio spot announcements was provided to participating companies for use in publicizing the campaign locally.

Complimentary copies of Section Newsletters, Accident Rates Pamphlets, and new technical publications were sent to leading trade journals to keep editors informed of developments in safety in their industry.

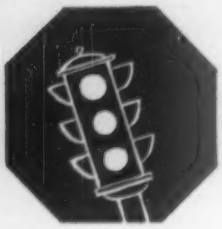
Cartoon panels, featuring industrial accident situations, were sent to 886 publications each month. One thousand eight hundred and forty three historic posters from the Council's files were sent in answer to requests from house organ editors.

National newspaper publicity was given in connection with the Council's Award Program. Safety awards to the aviation and railroad industries were especially highly publicized. Many companies receiving awards received newspaper publicity on a local level.

National radio and television time was also devoted to industrial safety records. DuPont, General Motors, United States Steel, and other large firms had Council award presentations made on their air shows.

NEEDS

- To more readily reach managements of small businesses. In this area lies a great potential for accident reduction, but because traditional methods of promoting accident prevent programs have not secured the desired results, new techniques are being developed.
- Promote special campaigns to eliminate injuries caused by some of the more common hazards. The successful special "Falls of Ground" campaign sponsored by the Mining Section indicates the potential of such projects. Emphasis must be placed upon elimination of accidents resulting from the more common causes which account for a high percentage of injuries every year.
- Intensify the off-the-job efforts. The goal should be to make the industrial worker and his family as safe in their daily activities as the worker is while on his job.
- Widen the influence of the Council by attracting more volunteer workers in certain fields where efforts must be broadened.

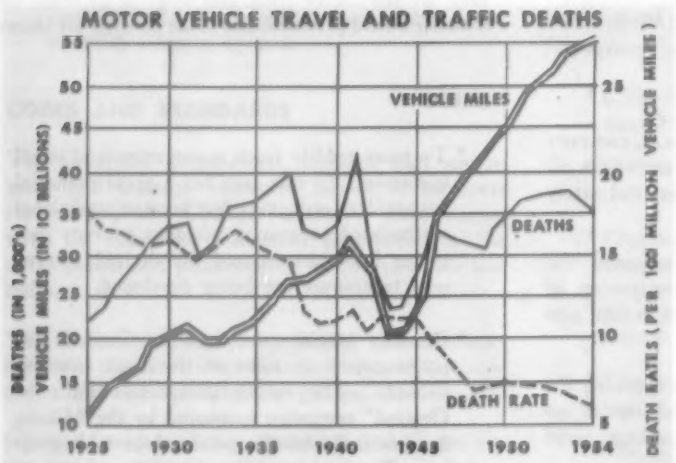


Traffic and Transportation

"The decrease in the traffic death rate reflects increased official activity and public interest in accident prevention measures. The National Safety Council has made and will continue to make outstanding contributions to these lifesaving endeavors. "If our total present know-how were really turned loose on the problem—if every jurisdiction did as good a job as the best cities are doing—we could cut down the total traffic accidents by two-thirds. We could reduce the figure of 36,000 killed in a year to 12,000."

Franklin M. Kreml

Vice President for
Traffic and Transportation
FRANKLIN M. KREML
Director, Transportation Center
Northwestern University



Highway traffic accidents killed 36,000 in 1954, a decrease of 6% from 1953. Motor vehicle use increased about 4%, however, and this coupled with the decrease in deaths produced the lowest national mileage death rate on record—6.4. Non-fatal injuries in 1954 totalled 1,250,000, down slightly from 1953. The estimated economic loss in motor vehicle accidents for the year was $4,400,000,000.

Other transportation accident deaths were down 10% from 1953. Railroad deaths were down 13%, air travel deaths down 12%, and water transportation down 8%.

The first months of 1955 have seen a slight increase in highway traffic deaths, although the rate continues to decline.

The National Safety Council is concerned with all phases of the traffic and transportation accident problem. The primary responsibilities for public safety is vested in public officials and transportation company management. The Council strives to interpret the interests and promote the welfare of the entire public through cooperating with and assisting these officials and managers in the discharge of their responsibilities.

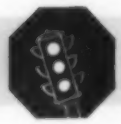
TRAFFIC & TRANSPORTATION CONFERENCE 1954-1955

CHAIRMAN

M. A. KRAFT, Director
Dept., Pers. and Acc. Prevention
American Transit Association

VICE CHAIRMAN
J. P. HIGHTOWER
General Safety Director
Greyhound Corporation

N. E. AIKIN, Director
Industrial Relations
Commercial Motor Freight
CYRIL AINSWORTH
Tech. Dir. and Asst. Secy.
American Standards Assn.
RAY ASHWORTH, Acting Dir.
Traffic Inst. and Traffic Div., IACP
Northwestern University
DR. W. W. BAUER, Director
Health Education
American Medical Association
RICHARD O. BENNETT, Dir.
Automotive Division
Ntl. Assn. Automotive Mut. Ins. Cos.
FRANK BLAKE
Director of Public Policy
Outdoor Advertising Assn.
DON BLANCHARD
Secretary, Technical Board
Society of Automotive Engineers
T. H. BOATE, Manager
Accident Prevention Dept.
Assoc. of Casualty & Surety Cos.
W. H. BOUTELL
Member, Board of Directors
Ntl. Automobile Transporters Assn.
I. B. BRUCE, President
Internti. Assoc. of Chiefs of Police
ROBERT D. BUGHER
Assistant to Director
American Public Works Assn.
FRED BURGRAFF
Director
Highway Research Board
ARTHUR C. BUTLER
Director
National Highway Users Conf.
A. W. CANTWELL, Ntl. Dir.
Safety Services
American Red Cross
COL. J. A. CHILDS, Chrm.
State and Provincial Section, IACP
CAPT. R. A. COOKE
Manager, Traffic Dept.
American Newspaper Publishers Assn.
HARRY COOPER
Director of Public Relations
Lions International
HARRY P. COOPER, JR.
Secretary
National Assn. of Mutual Ins. Cos.
ERNEST G. COX, Chief
Section of Safety, B.M.C.
Interstate Commerce Commission
MIKE CUSACK
Public Relations Dept.
U. S. Jr. Chamber of Commerce
NORMAN DAMON
Vice President
Automotive Safety Foundation



TRAFFIC AND TRANSPORTATION CONFERENCE

The Traffic and Transportation Conference, whose members represent the Traffic Section, the Commercial Vehicle Section, and the Transit Section as well as other organizations in the traffic and transportation field, has continued to carry forward its function of voluntary coordination.

A special committee of the Conference developed recommendations to the President's Committee for Traffic Safety. Included were the recommendations that the President's Committee continue its primary function of stimulating organized efforts for traffic safety in all states and communities; that the Committee report annually on accomplishments; that the Committee emphasize that "action" be generated, developed and supported locally. The report also urged the Council to devote increased attention to community and state organizations.

A Conference workshop was held at which were discussed the subjects of state and community organization, cooperation of field staffs, training, and special emphasis programs. Growing out of this meeting was a project for a directory of field staffs, a reorganization of the National Committee for Traffic Training, and a committee to study special emphasis programs. Another Conference committee is undertaking review and up-dating of the Council's basic report on speed and accidents.

TRAFFIC AND TRANSPORTATION DEPARTMENT

For effectiveness, coordination, and control, the principal staff activities in traffic and transportation were consolidated into a single Department organized into the following Divisions: Traffic Inventory, Motor Transportation, Public Education, and Traffic Operations. The professional staffs of the first three of these Divisions were augmented during the past year.

The Traffic and Transportation Department has 36 staff members. Time spent by representatives of other staff units is equal to more than twice as many people as are actually assigned to the Department. This includes field staff, statisticians, writers and editors, administrative staff, and associated clerical, stock, and shipping personnel.

Money to finance the Council's Traffic and Transportation work in 1954 came from the following sources:

Traffic dues, sales, advertising, etc.	$671,000
Grants for traffic safety	160,000
General contributive funds allocated by the Trustees	208,000
Traffic Income	$1,039,000
Other funds allocated by Directors	185,000
Traffic Expenses	$1,224,000

For discussion of sources of revenue and kinds of expense, see pages 6 and 7.

M. R. DARLINGTON, JR.
Managing Director
Inter-Industry Highway Saf. Comm.
HARMER E. DAVIS, Dir.
Inst. of Transp. & Trf. Engrg.
University of California
WILLIAM J. DAVIS
Secretary and Manager
National Automobile Theft Bureau
H. S. DEWHURST
Secy., Safety Section
Assn. of American Railroads
JAMES P. ECONOMOS, Dir.
Traffic Court Program
American Bar Association
OSCAR E. H. FROELICH
Private Truck Council of America
L. D. GALE
President
Beloit Bus Co., Inc.
WILLIAM H. GREENE, Chrm.
Nti. Cnf. State Safety Coordinators
CHARLES J. HAHN
Executive Secretary
National Sheriffs' Association
LAWRENCE HAPGOOD
Director of Activities
Kiwanis International
L. S. HARRIS, Exec. Dir.
American Association of Motor Vehicle Administrators
PATRICK HEALEY, JR.
American Municipal Association
MRS. J. HOWARD HODGE
Safety Chairman
Gen. Federation of Women's Clubs
DAN HOLLINGSWORTH
Manager
Oklahoma City Safety Council

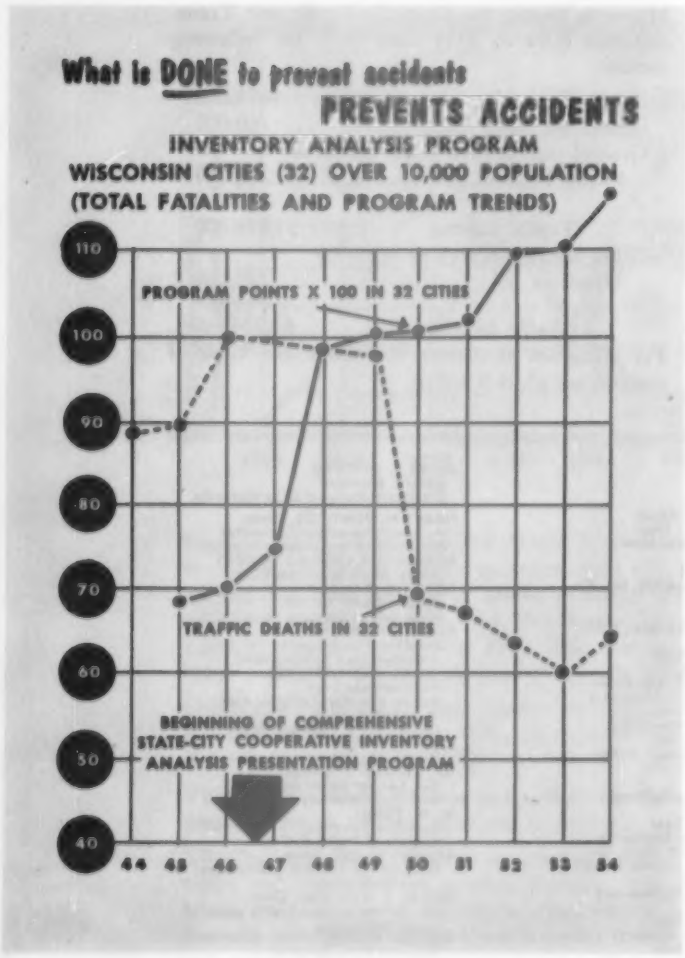
E. H. HOLMES
Deputy Commissioner
U. S. Bureau of Public Roads
A. E. JOHNSON, Exec. Secy.
American Association of State Highway Officials
ARTHUR S. JOHNSON
American Mutual Liability Ins. Co.
JOSEPH KAPLAN
Secretary-Manager
Greater Los Angeles Chapter, NSC
E. R. KLAMM, Mgr.
Accident Prevention Dept.
Allstate Insurance Co.
MRS. FRED W. KNIGHT, Saf. Chrm.
Nti. Cong. of Parents and Teachers
A. W. KOEHLER, Secy.-Mgr.
Nti. Assn. Motor Bus Operators.
FRANKLIN M. KREML, Dir.
Northwestern Univ. Transp. Center
JOHN V. LAWRENCE
Managing Director
American Trucking Associations
B. W. MARSH, Dir.
Traffic Engrg.-Safety Dept.
American Automobile Association
ADMIRAL H. B. MILLER (Ret.), Dir.
President's Comm. for Traffic Safety
JOHN O. MOORE, Dir.
Automotive Crash Injury Research
Cornell University
HON. ALFRED P. MURRAH
Judge, U. S. Court of Appeals
SIDNEY E. NELSON, Chrm.
Accident Prevention Committee
Nti. Assn. Insurance Agents
GEORGE OPPER
Village Manager
Riverside, Ill.

JAMES S. OSBORNE
General Manager
Cincinnati, Newport & Covington Ry.
HARRY M. PONTIOUS, Chrm.
Accident Prevention Committee
Nti. Assn. of Independent Insurers
HONORABLE THOMAS POWERS
Judge, Akron Municipal Court
ROBERT E. RALEIGH
Citizens Traffic Saf. Bd.
Metropolitan Chicago
EUGENE REYBOLD
Executive Vice President
American Road Builders Assn.
KARL M. RICHARDS, Mgr.
Field Services Dept.
Automobile Manufacturers Assn.
T. J. SEBURN
Yale Bureau of Highway Traffic
EDMUND B. SMITH
Kansas City, Mo.
DR. HERBERT J. STACK
Dir., Ctr. for Safety Education
New York University
M. M. TODD
Executive Secretary
Institute of Traffic Engineers
ARNOLD H. VEY, Chrm.
Nti. Conf. on Uniform Traffic Laws and Ordinances
SIDNEY J. WILLIAMS, Chrm.
Nti. Comm. Uniform Traffic Laws and Ordinances
HERBERT WILTSEE
Regional Representative
Council of State Governments
FRANK J. WIRKEN
Dir., Safety and Personnel
Interstate Bakeries Corp.

Traffic Inventory

The Annual Inventory of Traffic Safety Activities provides a practical means of inventorying and evaluating traffic safety activities in states and cities. The program was recommended by the Officials' Group of the White House Conference on Highway Safety, which urged that each state and community use the Inventory to determine highway safety deficiencies and establish priorities for remedying them.

The Inventory gathers information on both official and non-official traffic activities including sections on the fatility and injury record, collection and use of accident reports, traffic engineering, police traffic supervision, traffic courts, traffic legislation, driver licensing, periodic motor vehicle inspection, school traffic safety education, public safety education and safety organization. Questionnaires covering these subjects contain about 750 questions.



For 1954, reports were submitted by 46 states, by 870 cities of 10,000 or more population, and 268 cities between 5,000 and 10,000, these latter in states selected for an experimental program. The 870 larger cities represented 62% of those in the country. Expansion in the inventory service has been made possible in 1955 by an increase in field staff. The newly created Field Service Department provides staff to present analyses, to encourage cities and states to report, and to work with state agencies who assist in presentations of analyses to cities. Additional field men also make possible more intensive help in carrying out analysis recommendations.

Inventory reports from states and cities furnish evidence of the value of strong traffic safety programs. States with above-average scores for program activities had a combined mileage death rate of 5.8 deaths per 100,000,000 vehicle-miles. States with program scores below the mid-point had an average death rate of 7.2.

For the second successive year the grand award winner was a small city. It is significant that in Wausau, Wisconsin, grand award winner, traffic safety activities have been steadily gaining strength for the last 10 years.

Further expansion of the Inventory program will provide more special studies and surveys, such as the recently completed survey for one county in Ohio to determine what is needed to improve traffic management throughout the area. Other new projects to be undertaken include preparation of field manuals and more intensive training of personnel of other organizations who work with the Inventory representatives of the states and cities.

The goal of the Inventory is a progressive one—to give the most realistic and stimulating service possible, within the limits of Council resources, to all cities and states in their management of traffic and prevention of traffic accidents.

Motor Transportation

Commercial truck, bus, taxicab and passenger car fleets are participating in the National Safety Council's complete motor transportation service in greater numbers than at any other time in the history of the program. Growth registered over the past decade is shown in the accompanying chart.

CONTESTS AND AWARDS

The Council's incentive program for the motor transportation industry is based, first, on the standardization of accident reporting and analysis procedures. The definition of "preventable" and "reportable" accidents has gained wide acceptance as a reliable measure of individual and group safe driving performance. These definitions form the basis of the National Safety Council's Safe Driver Award and the National Fleet Safety Contest.

In 1955 a quarter of a million professional drivers will seek to earn NSC Safe Driver Awards. More than 1800 fleets will compete in the National Fleet Safety Contest.

SERVICE

To supplement the award and contest activities, the Council provides films, posters, safetygraphs, booklets, driver letters, driver magazines, newsletters and other training and reminder materials. These materials reach more than a half million professional drivers monthly.

ASSOCIATION ACTIVITY

By cooperating with trade and professional associations in the conduct of the National Fleet Safety Contest the Council has extended its influence to many more fleets. Associations now sponsoring divisions of the National Fleet Safety Contest are the Milk Industry Foundation, The National Automobile Transporter's Association, The International Association of Chiefs of Police, The American Gas Association, and The United States Brewer's Foundation.

GOVERNMENT FLEETS

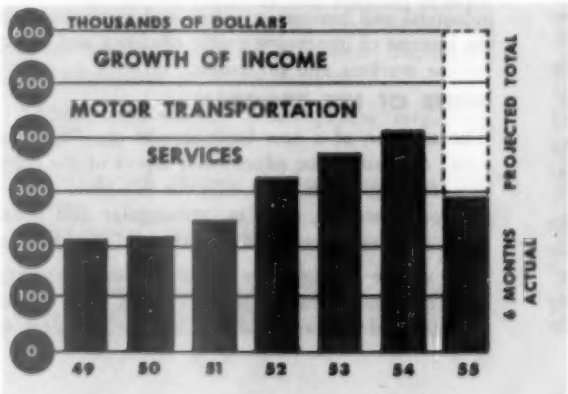
The Council's complete motor transportation service was recently adopted throughout the United States by the U. S. Post Office Department. The service is also being used by several state highway departments, state police departments, municipal police departments, units of the U. S. Forest Service, the U. S. Corps of Engineers and school bus fleets. A committee of school administrators was established this year to guide a special program for bringing the Council's service to school bus drivers on a nationwide basis.

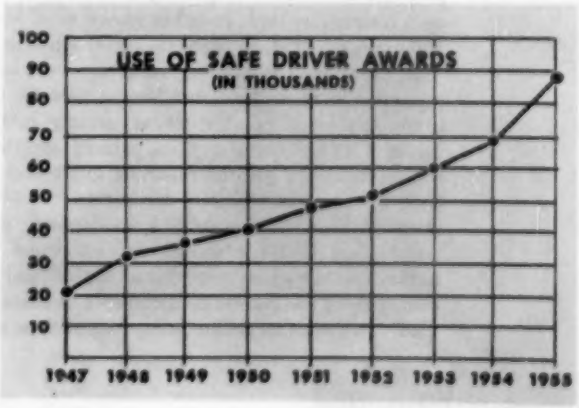
LOCAL COUNCIL SERVICE

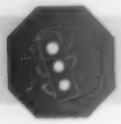
Through special membership arrangements, local council managers may offer the complete transportation service to fleets in their area on a "blanket service" basis. This arrangement gives local councils the opportunity of performing additional valuable services to local members and brings the Council's program to many additional fleets which might otherwise not be reached through regular membership channels.

MARCUS A. DOW MEMORIAL AWARD

Established by the Council in 1951 in cooperation with the Greyhound Corporation, the Marcus A. Dow Memorial Award places emphasis on the need for high professional standards among fleet safety directors. The award, consisting of a plaque and $500, is given annually to the outstanding professional fleet safety engineer in the United States and Canada. Four awards have been made thus far. The award dctivity has enhanced the professional status of fleet safety directors everywhere.







Public Education

The scope of the Council's Public Education Activities has broadened considerably during recent years. Increased public concern and interest in traffic safety enhanced the value of the Council's coordinating activities in the public education field. In accordance with a resolution of the former National Committee for Traffic Safety, the Council accepted the responsibility for providing a clearing house for participation of some 100 national organizations in the traffic safety support program.

The public education function was placed on division status in the Traffic and Transportation Department, and now encompasses work with public support groups, the Operation Safety program, and the Signs of Life Program.

The Public Safety Education Committee will be enlarged to include representation from the former National Committee for Traffic Safety.

OPERATION SAFETY PROGRAM

Efforts continued, successfully, to make the monthly theme program of Operation Safety more useful to public officials and support groups. Field tests were continued to improve the application of community wide emphases. Traffic Inventory data were analyzed and field studies were conducted to evaluate old and new techniques, programs and materials to better assist state and local officials and support groups to bring the traffic safety message to the individual driver and pedestrian.

As a result of a pilot program on a community wide basis in Midland, Michigan, the Operation Safety program, in cooperation with the Inter-Industry Highway Safety Committee, developed a new type of courtesy program, including an all-out community wide participation. This program of Motor Manners, with the slogan "Make Courtesy your Code of the Road" is recommended as a national activity.

Encouraging expansion has been experienced in the May Vehicle Safety Check Program. From a pilot program in Dothan, Alabama, in 1953, the program on a community-wide basis has grown from less than 150 cities in 1954, to more than 300 cities in 1955. This program, encouraging voluntary vehicle check programs in those states not having periodic vehicle inspection laws, brought about greatly intensified use of Operation Safety kits, which, for the first time, included a printed planning guide and workbook for community safety committees.

Another area of experimental development was the cooperation in the planning and execution of the nationwide summer-long "Slow Down and Live" campaign of the National Conference of State Safety Coordinators. Operation Safety kits of these months promoted cooperation with the "Slow Down and Live" program and provided a means of presenting new ideas antd materials for the program.

Projection of the work and activities of the Winter Driving Hazards Committee also is carried forward through presentation of materials and activity ideas in the Operation Safety winter kits.

A calendar of Fall and Winter public information activities of the National Safety Council and cooperating safety groups was distributed widely. The calendar, to be revised periodically, will present, several months in advance, a listing of press, magazine, radio and TV, outdoor advertising, printed advertising tie-ins, schedule of articles in the National Safety Council publications, and other groups' projects in month-by-month chart form.

CITATION AWARD PROGRAM

The Citation Award Program, formerly conducted by the National Committee for Traffic Safety and now assumed by the National Safety Council, drew not only an increased number but improved quality of entries describing public support activities of individuals and groups. Established to provide recognition for outstanding contributions to traffic safety by those who would not otherwise be recognized, the program had 120 entries, based on 1954 achievements. Sixteen awards were given—six to individuals and ten to local, state and national organizations. Several governmental and military programs were considered so outstanding in their contribution to public safety that four special awards were made, and the committee of judges recommended that a separate category for such awards be set up in the future.

OFF-THE-JOB SAFETY

A substantial increase in off-the-job safety activity by industry has encouraged the production of planning aids, and activities and materials for use by industrial safety departments. Inventory reports from many states and cities stressed participation of industrial and business concerns and associations, in the interest of improving traffic efficiency and safety for the workers and the public.

SIGNS OF LIFE PROGRAM

The addition of a new basic sign to the "Signs of Life" intensified the educational aspect of the Signs of Life program in 1955. To the five basic signs—octagon, diamond, circular, rectangular and crossbuck, now has been added the triangle "Yield" sign.

Two of the six signs are grade crossing warnings. This educational campaign, carried on with the cooperation of the railroads, is an integral part of

Operation Safety. It features a full-scale Signs of Life emphasis during the month of August when vacation and weekend driving is at a peak. It is also woven into the "Know and Obey Traffic Laws" emphasis during the month of February, and is stressed in the mild climate states when the Winter Hazards program is running in colder areas.

With the "Yield" sign added, a new basic program leaflet was developed and distributed during the year. Nearly one half million copies were distributed, primarily through state traffic safety coordinators.

Many of the state coordinators are working with their communities in a Signs of Life standardization and modernization program. Other aspects of the educational program include development and distribution of posters, Council films, radio and TV materials, a traveling exhibit for use at local meetings, and technical and editorial assistance and guidance to those publishing and producing educational items dealing with the standard signs.

The Council's new program of awards to American railroads for public safety activities, including participation in the Signs of Life program, brought recognition to 16 railroads.

PRESS, RADIO, TV

Newspaper and magazine work of the Council, in addition to that noted under specific traffic headings, has included many news releases, films, mats, and special services to magazines, radio-TV, newspapers, and other media.

Holiday traffic toll prediction and educational news releases were widely used over Memorial Day, July 4th, Labor Day, Christmas and New Year's Day.

The "Stop Accidents" Campaign conducted by The Advertising Council for the National Safety Council ranks near the top of the 18 public service campaigns of The Advertising Council. The National Safety Council pays only for cost of materials used in the campaign. Talent, administration, and advertising time and space are contributed.

Public Interest Awards of the Council stimulate and recognize outstanding support of traffic safety by public information media. The exhibits of 241 winners showed a preponderance of attention to traffic accident prevention.

Overall data on Council Public Information work, will be found elsewhere in this report.

Traffic Operations

WINTER DRIVING HAZARDS

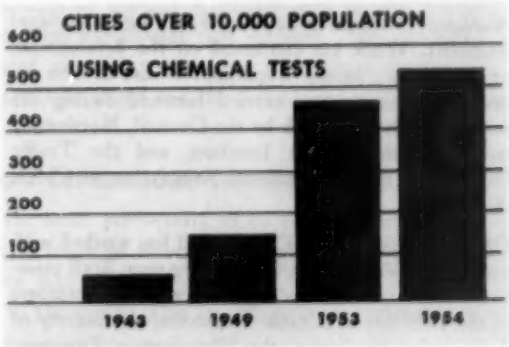
The Committee on Winter Driving Hazards continued its educational and research program. Tests during the winter of 1954-55 included a recheck of winter-type tires—the first tests of this type since 1951. Some improvements were noted, with several tires performing as well as the best tires observed four years earlier. Other phases of the winter testing program were continued, including additional research on the driver technique study designed to determine the best methods by which drivers can avoid skids and other wintertime hazards.

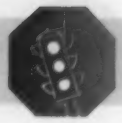
More than 100,000 copies of two booklets presenting winter hazards data, one for truck drivers and one for passenger car drivers, were distributed. Other educational materials included:

- *Three news releases to newspapers, magazines, and trade journals.
- *Two winter stopping distance charts — 7,500 copies.
- *Three TV shorts to 173 stations.
- *Ten radio transcriptions featuring Hollywood stars to 863 radio stations.

ACCIDENT RECORDS

Major attention was given to the Accident Records Section of the Annual Inventory. Reports from states and cities were analyzed and specific recommendations made to all reporting jurisdictions. Staff has continued to provide specialized assistance to states and cities in improving accident reporting systems, including participation in training courses and conferences.





TESTS FOR INTOXICATION

The number of jurisdictions using chemical tests for intoxication continues to increase. Three new states, bringing the total to 21, now include provisions for chemical tests in their statutes. The latest additions were Delaware, Kansas and Minnesota. There are now three states (New York, Kansas and Idaho) which have legislation providing for suspension of a driver's license when he refuses to take a lawful chemical test.

Work in this area is carried on with the advice of a committee of technical and scientific specialists. One committee member recently developed a new device to measure alcohol in the breath. Other committee members are supervising an important research program carried on by the Royal Canadian Mounted Police, looking toward the establishment of additional evidence of the point of impairment of drivers after drinking. Staff and committee members have worked with Northwestern University Traffic Institute and other agencies in training courses for chemical test technicians.

JOINT ACTIVITIES

President's Committee for Traffic Safety. The Council has continued support of and cooperation with the President's Committee for Traffic Safety. The General Manager serves as a member of the Advisory Council, and other staff members on special committees of the President's Committee. The Council took part in the S-D Day program, December 15, 1954, and has been at work since early summer in the planning for S-D day, 1955 (December 1).

National Committee on Uniform Traffic Laws and Ordinances. The Uniform Vehicle Code was published in revised form, with all five acts in a single volume. Although no major revisions are now anticipated, nine subcommittees are at work on various points still under consideration. The Council joins other national organizations in the activities of the Committee and promotes uniformity through official adoption of the Code sections.

National Conference on Uniform Traffic Accident Statistics. Work has continued on the development of new report forms. Experimental use of new investigator's forms was carried forward during the year, through staff work by the Council, Northwestern University Traffic Institute, and the Traffic Division of the International Association of Chiefs of Police.

Other Organizations. The Council has worked with many other organizations during the year. Staff members have served as officers and committee members of the Institute of Traffic Engineers, the Society of Automotive Engineers, the Illuminating Engineering Society, the Highway Research Board, the American Standards Association, and others.

State and Community Organizations. The emphasis of the White House Conference on Highway Safety was toward the development of state and community organizations for safety. This has been a major objective of the Council during the past year, and is reported upon in another section of this report. The annual Institute for Chapter Managers, held at Yale in February, was devoted largely to traffic.

Other Council Departments. There are closely working relationships between the Traffic and Transportation Department and those of other program divisions whose work relates to traffic problems. These other divisions include School and College, Farm, Women's Activities and Field Service. Traffic work in these areas is discussed fully in other sections of this Report.

Research. Research efforts to develop more information about traffic accidents have had the encouragement and participation of the Council. Of major interest during the year has been the work on crashworthiness carried on by several colleges and by automobile manufacturers. The Council's own activities have included further work on winter hazards, including a re-test of special tires, and a continuation of work on the chemical test project. A continuing Council project is that of collecting, analyzing, and publishing information about trends and circumstances of accidents, a project of the Statistics Division which results in *Accident Facts* and other materials. The compilations of the data submitted in the Annual Inventory constitute a continuing research project of fundamental value.

MEMBERSHIP AND SERVICES

Traffic memberships now total 983, a 2 per cent increase from 1954. Publications and dues income in 1954 was substantially above that for 1953, totalling $177,000 as against $115,000 for 1953. These figures do not include motor transportation income, reported on an earlier page. For the first half of 1955, general traffic income was at 1954 levels.

Public Safety magazine paid circulation is 10,037 (June, 1955), a 12% increase in twelve months.

CONGRESS

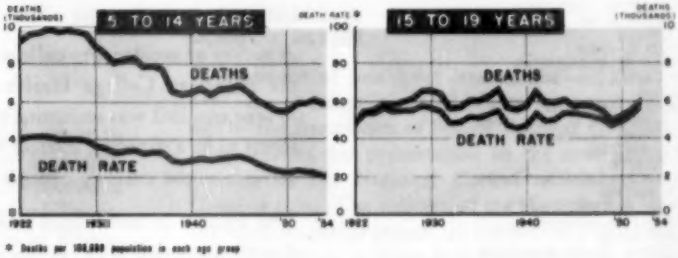
The Traffic and Transportation sessions of the National Safety Congress in 1955 include 25 meetings with more than 100 speakers. Anticipated attendance, based on 1954, is 3,000. News stories, photographs, radio and television broadcasts help publicize the sessions. Transactions of the meetings, reported in over 100 pages, have a distribution of 3200 copies.

Schools and Colleges

Vice President
for Schools and College
LOWELL B. FISHER
University of Illinois

"Medical science has made marvelous progress in the control of children's diseases. Through co-operative effort on basic safety education programs—programs planned with care, executed with skill and adequately financed—comparable progress would be made in combating accidents, the number one killer of children and youth. The schools provide a natural channel through which to attack this problem since they enroll more than 91 per cent of the nation's population between the ages of 5 and 17."

—Lowell B. Fisher



The accidental death rate for children 5 to 14 years old was only 20.2 per 100,000 in 1954. No other age group even approximated this rate —the next lowest being 44.4 for persons 25 to 44 years old. However, it is in the 5 to 14 year group that the population is increasing most rapidly, and will continue to increase for several years. The present level of effort in the safety education field may push down the death rate a little more, but if the number of deaths is to be reduced despite a larger and larger population, more accident prevention work must be done. The following example illustrates the problem: In 1951 the death rate was 23.5, so the 1954 rate of 20.2 represents a very satisfactory rate reduction of 14 per cent in three years. The death total in 1954, however, was 5,900, the same as in 1951.

SCHOOL AND COLLEGE CONFERENCE

Research in all aspects of safety education stood out as the most urgent need in the survey conducted by the Conference last year. To implement this need, a study to determine specific research subjects is now under way. A committee of research specialists will suggest appropriate research procedures for several type subjects. The published report will be released as a joint project of the Center for Safety Education, New York University and the School and College Conference.

SAFETY EDUCATION SUPERVISORS SECTION

On the occasion of the tenth anniversary of its founding the Section has completed a status study of safety education supervision in the United States. More than half of the almost 500 members of the Section contributed to the study. This should point the way for improvement in supervision for the next decade.

SCHOOL & COLLEGE CONFERENCE 1954-1955

CHAIRMAN
NORMAN E. BORGERSON, Deputy Superintendent, Michigan Dept. Public Instruction

VICE CHAIRMAN FOR ELEMENTARY EDUCATION
DALIBOR W. KRALOVEC, Asst. Dir. Saf. Ed., Philadelphia, Pennsylvania

VICE CHAIRMAN FOR SECONDARY EDUCATION
C. BENTON MANLEY, Director of Safety Education, Springfield, Mo.

VICE CHAIRMAN FOR HIGHER EDUCATION
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C. Benton Manley
James W. Mann
Norma F. Wulff
Mary May Wyman

ORGANIZATIONS AND AGENCIES INTERESTED IN EDUCATION AND SAFETY

Accident Prevention Department of Association of Casualty and Surety Companies
PRICE E. CLARK
American Academy of Pediatrics
EDWARD PRESS, M.D.
American Association for Health, Physical Education and Recreation
A. H. PRITZLAFF
CLIFFORD LEE BROWNELL
American Automobile Association
HELEN KNANDEL
American Council on Education
FRANK C. ABBOTT
ARTHUR S. ADAMS
American Home Economics Association
MILDRED HORTON
American Industrial Arts Association
MERRILL HAMBURG
DEWITT HUNT
American Medical Association
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American National Red Cross
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American Vocational Association
M. D. MOBLEY
J. E. TEPOORTEN
L. A. BURKETT
Association for Supervision and Curriculum Development
NORMAN GORE
ROBERT B. ZIMMERMAN

(Continued)

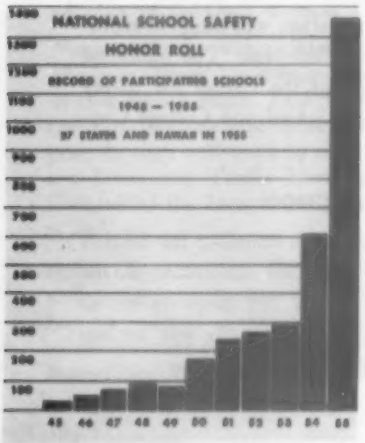
Association of American Railroads
H. S. DEWHURST
Association of School Business Officials
DON GAVIT
HARLEY ANDERSON
Automotive Safety Foundation
STEPHEN JAMES
Boy Scouts of America
DONALD M. HIGGINS
Center for Safety Education
HERBERT J. STACK
Girl Scouts of America
MARY WEEKS
National Board of Fire Underwriters
J. WENDELL SETHER
National Catholic Education Association
MSGR. FREDERICK G. HOCHWALT
ALFRED L. PAPILLON
National Congress of Parents and Teachers
MRS. FRED W. KNIGHT
National Council of Chief State School Officers
HAROLD K. JACK
NORMAN E. BORGERSON
National Council on Schoolhouse Construction
THOMAS J. HIGGINS
National Federation of State High School Athletic Associations
FRED L. BIESTER
H. V. PORTER
National Fire Protection Association
PERCY BUGBEE
JOHN J. AHERN
National Rifle Assn. of America
STANLEY MATE
National School Boards Association
EDWARD M. TUTTLE
J. G. STRATTON
North Central Association of Colleges and Secondary Schools
LOWELL B. FISHER
M. R. OWENS
U. S. Office of Education
H. E. VILES
ELSA SCHNEIDER

SECTIONS

Driver Education Section
LESLIE SILVERNALE
CECIL ZAUN
Safety Education Supervisors Section
EDWARD R. ABRAMOSKI
FORREST GAINES

COMMITTEES

National School Safety Honor Roll Committee
FORREST E. LONG
Standard Student Accident Reporting Committee
THELMA REED
School Transportation Committee
O. P. RICHARDSON
School Plant Planning Committee
THOMAS J. HIGGINS



DRIVER EDUCATION SECTION

National trends in driver education show an increase in the number and activity of state driver education associations, a continuation of teen-age traffic safety conferences, general upgrading of teacher preparation and certification, and an increase in the number of states providing financial assistance for the course. The Driver Education Section has assisted these several developments wherever possible. Membership in the Section has grown from 684 to 708 during the past year. Twelve of the 31 state associations are affiliated with the Section.

HIGHER EDUCATION

A survey of accidents to college students published in cooperation with the American College Health Association showed that one student in nine enrolled was accidentally injured during the school year. There seems to be a growing interest in accident reduction among the health services of the nation's colleges.

The number of institutions offering courses in safety for teachers was slightly increased with courses in Hawaii and Puerto Rico added this year to the reports from the 48 states and the District of Columbia.

The number of institutions offering minors in safety education increased from nine in 1954 to 21 in 1955.

The Second National Conference on Campus Safety was held in cooperation with the University of Minnesota. Transactions of the Conference have been published.

PUBLICATIONS

Subscriptions to *Safety Education* magazine numbered 8,218 in September of this year as compared with 8,116 at the same time in 1954. More than 1,066,416 lesson units and 460,000 posters were distributed during the 1954-55 school year.

Twenty new Safety Education Data Sheets are in preparation to be added to the current list of 63 subjects. The complete set is now available in a bound volume.

The campaign to combat the hazards of discarded refrigerators is being continued this year with the cooperation of the National Congress of Parents and Teachers. Free distribution is being made of 350,000 each of the data sheet and poster dealing with the subject.

The Division completed three sound motion pictures dealing with Baby Sitting, the Noon-Time Driving Problem, and Six Murderous Beliefs. All are aimed at the high school audience. Each is available in black and white or color.

Publications income in 1954 was $64,614, an increase of almost $10,000 over 1953. In the first six months of 1955, publications income was $34,070.

ACCIDENT REPORTING

Due to the adoption of a new standard summary form the number of school students covered by the Standard Student Accident Reporting system was lower than that of the previous year. It is noteworthy, however, that all but two major school systems made the changeover to the improved summary sheets without difficulty, an indication of the value of the new form. The Committee currently is engaged in analyzing report forms used by insurance companies in the reporting of injuries to students covered by general liability insurance. It is hoped that essentials can be determined and a form that will meet all needs result.

HONOR ROLL

This program for recognizing exceptional effort in safety education has proved effective in upgrading such programs of individual schools. Increased stimulation by State Congress of Parents and Teachers, Council Chapters, State Departments of Education, and State Safety Commissions resulted in 1,361 schools named to the 1955 National School Safety Honor Roll, more than doubling the 605 qualifying in 1954.

CONSULTATION

During the 1954-55 school year more than 22,000 requests for safety information were answered. Staff members spent 148 working days in 31 cities of 21 states, during the first seven months of 1955, assisting local, state and national safety education programs as illustrated by:

- *Outlining of school safety program for the State of California.
- *Outlining safety program for the American Industrial Arts Association.
- *Participation in Conference of organizations for revision of "Standard Rules for the Operation of School Safety Patrols."
- *Participation in Southeastern Conference on Transportation.
- *An exhibit at the summer convention of the National Education Association, at which 817 delegates stopped for advice on safety matters.

SCHOOL TRANSPORTATION

One of four students of elementary and secondary schools is transported to school in a bus owned or contracted for by a board of education. To safeguard these pupils requires the combined efforts of school administrators, traffic and highway authorities, safety specialists, the motoring public and the pupils themselves. The Council's School Transportation Committee has contributed to school bus safety through participation in the "world's largest school bus driver institute" held in New Mexico, the preparation of data sheets on pupil passenger instruction and selected operating practices and the release of a series of memos dealing with school bus accident records, state legislation requiring motorists to stop before passing school buses, state programs for school bus safety, minimum ages of school bus drivers and other pertinent matters. It is now investigating the special traffic control problems growing out of the development of multiple-lane and limited access highways traversed by school buses.

SCHOOL PLANT

A statement of principles on responsibility for the provision of safety in school plants, approved a year ago by the Association of School Business Officials, is being revised for presentation to the next October meeting of the National Council on Schoolhouse Construction. The validity of the statement is being reviewed by key personnel on the School Plant Planning Committee to bring it in harmony with a study now being made by the Schoolhousing Section of the United States Office of Education. The Committee is in the process of developing a comparable statement of principles on the selection of safe school sites.

LOCAL CHAPTERS

To make more efficient and continuous the Division's service to local chapters a survey has been made of safety education in the public, parochial and private schools in chapter cities. This job was a joint undertaking of the School and College Division and the Field Service Department. An eight-page questionnaire was sent to 72 cities. Responses were received from two-thirds. A report on this investigation is scheduled for the School and College Conference in October.

STAFF AND BUDGET

Eight staff members worked in the School and College Division. In addition, time spent on behalf of school safety by staff in other units was equivalent to about one and a half times that number of people. Money to finance the Council's School safety work in 1954 came from the following sources:

Dues, sales of materials, advertising	$ 77,000.
General contributive funds allocated by the Trustees	64,000.
School Income	$141,000.
Other funds allocated by the Directors	75,000.
School Expense	$216,000.

For discussion of sources of revenue and kinds of expenses represented, see pages 6 and 7.

Home Safety

"The gratifying decrease in the home accident death rate, especially over the past few years, calls for a renewed effort on the part of all. The rate is still needlessly high."

Walter A. Stewart

Vice President for Homes
W. A. STEWART
President
American Optical Company

Home accident deaths in 1954 numbered 27,500, or a rate of 17.1 per 100,000 population. Non-fatal injuries totaled approximately 4,000,000. A table and a chart showing the downward trend of the death rate from home accidents is reproduced below.

WHAT THE COUNCIL IS DOING

The Home Safety Conference is the meeting ground for national groups. Three divisions of the Conference (1) health and medical, (2) home building and equipment, and (3) community service groups, are at work in their special areas of influence.

This year, for the first time, a national inventory of home safety was undertaken as a staff activity under the aegis of the Home Conference and with the guidance of a special committee. Several hundred reports were received from all over the country, and the total amount of home safety education going on made an impressive accumulation. Abstracts of all the reports received are to be published this fall in a volume entitled "Home Safety Inventory—1955". As in previous years awards are given for the best program reports received.

The Home Division with a small staff and budget serves as a clearing house calling attention to current needs and passing on such information as details of award-winning activities to interested national and community groups through periodicals like the *Home Safety Review* (monthly circulation 2,290) and the *Home Safety Newsletter* (bi-monthly).

The Division assists in stimulating and accelerating programs through field visits; through correspondence; through participation in conferences (regional or state safety conference, public health associations, home builders); publication and distribution of fact sheets, program-planning materials and educational leaflets.

Public Information:

- News release on Home Merit Awards for outstanding home safety programs.
- News release on hazard of abandoned refrigerators and freezers given national distribution.
- Material on home and fire safety included in Christmas Campaign.
- Several exclusive stories developed for newspaper feature syndicates and individual newspapers.

HOME CONFERENCE
1954-1955

CHAIRMAN
DONALD E. MUMFORD
Manager of Safety
New York Central System

VICE CHAIRMAN HEALTH AND MEDICAL
FRED LONG, M.D.
Commissioner of Health
Peoria, Illinois

VICE CHAIRMAN COMMUNITY SERVICE GROUPS
MISS MARY M. WEEKS
Health and Safety Advisor
Girl Scouts of America

VICE CHAIRMAN HOME AND BUILDING EQUIPMENT
MISS EDITH RAMSAY
Home Equipment Editor
The American Home

DALE K. AUCK, Director
Fire Prevention Division
Federation of Mut. Fire Ins. Cos.
W. W. BAUER, M.D., Director
Bureau of Health Education
American Medical Association
THOMAS J. BERK
Assistant Director of Safety
Metropolitan Life Ins. Co.
MRS. P. D. BEVIL, Chrm.
Committee on Safety
Natl. Cong. of Parents and Teachers
W. W. BOLTON, M.D.
Assoc. Dir., Bur. Health Education
American Medical Association
MRS. RUTH A. BOTTOMLY
Director of Office
Natl. Cong. of Parents and Teachers
A. CARL BREDAHL
Westinghouse Electric Corporation
JACK W. BRUCE
Executive Assistant
U. S. Savings and Loan League
ALFRED M. CANTWELL, Natl. Dir.
Safety Services
American National Red Cross
MYRON CUSACK, Mng. Dir.
Safety Department
U. S. Jr. Chamber of Commerce
DR. WALTER CUTTER, Asst. Dir.
Div. of General Education
New York University Center for Safety Education
HOWARD ENNES, Director
Bureau of Public Health
Equitable Life Assurance Society
MISS ESSIE L. ELLIOTT
V. Pres. Home Safety
Greater Los Angeles Chapter, NSC
MISS RUTH FISHER, Director
Department of Public Health Nursing
National League for Nursing
E. M. GEARHART, JR., Director
Spokane Area Safety Council
LEONARD HAEGER
Technical Director
Levitt & Sons, Inc.
MRS. ESTHER HANDWERK, Dir.
Division of Home Economics
Chicago Board of Education
E. V. HERRINGER, Sanitary Engineer
U. S. Public Health Service

- Worked with writers and national magazine editors on original safety articles which appeared in *Ladies Home Journal, American Home, Woman's Day, Parade, Baby Post, Modern Baby, House & Garden, Look,* and *Better Homes & Gardens.*
- Distributed cartoon mat feature, "Hearthaches," to newspapers, employee publications and miscellaneous publications.

Statistics:
- Five pages in *Accident Facts,* with new material on poisoning deaths of young children.
- Current monthly death estimates.
- Consultation on local surveys.

School and College:
- Renewal of abandoned refrigerator campaign.
- Publication of numerous data sheets on home hazards.

Women's Activities:
- Monthly distribution of "Targets", a program sheet, to 7,000 women leaders.
- Consultation and assistance to hundreds of groups.

Industrial:
- Publication of off-the-job leaflets and guides, widely used in industry, as is the Council's annual calendar.
- A total of 12 Sections of the Council's Industrial Conference have off-the-job safety committees. This reflects the interest in off-the-job and home accidents on the part of members of the Council.
- Technical information, particularly in the chemical and electrical fields.

WHAT OTHERS ARE DOING

As this year's Inventory has illustrated, activities of every sort make up the total national home safety effort. Some examples of programs to meet specific needs are given below:

HEALTH AND MEDICAL

The growth in interest by the medical profession is evidenced by the fact that the American Association of Plastic Surgeons has appointed a committee to study participation of the association in child accident prevention and the national program committee of the Women's Auxiliary to the American Medical Association has urged that safety be stressed in 1954-1955.

State and local health departments, under the stimulation of the Kellogg Foundation projects, are beginning to assume official responsibility for home safety programs. Besides the eight states under the Kellogg project, four others—New York, Oklahoma, Pennsylvania, and Missouri—have full or part-time personnel assigned to home safety.

City-wide poison control programs, originated in Chicago, are now under way in Boston, New York City, Phoenix and Washington, D. C. Home safety kits have been prepared and distributed by six states or local organizations, and safety institutes have been held the past two years under the auspices of the University of North Carolina School of Public Health.

Incidence studies have been conducted in a number of localities by such groups as the Ingham County (Michigan) Medical Society; 11 of 18 hospitals and Blue Shield and in ten hospitals cooperating under the Southwest District Council, Ohio Hospital Association.

OFF-THE-JOB SAFETY

Here are some reports of industry-sponsored off-the-job safety programs:

Eight railroads in 1954 held family group safety meetings for over 190,000 employees and their families. Almost 1,000,000 school children were presented programs in safety by six of our railroads.

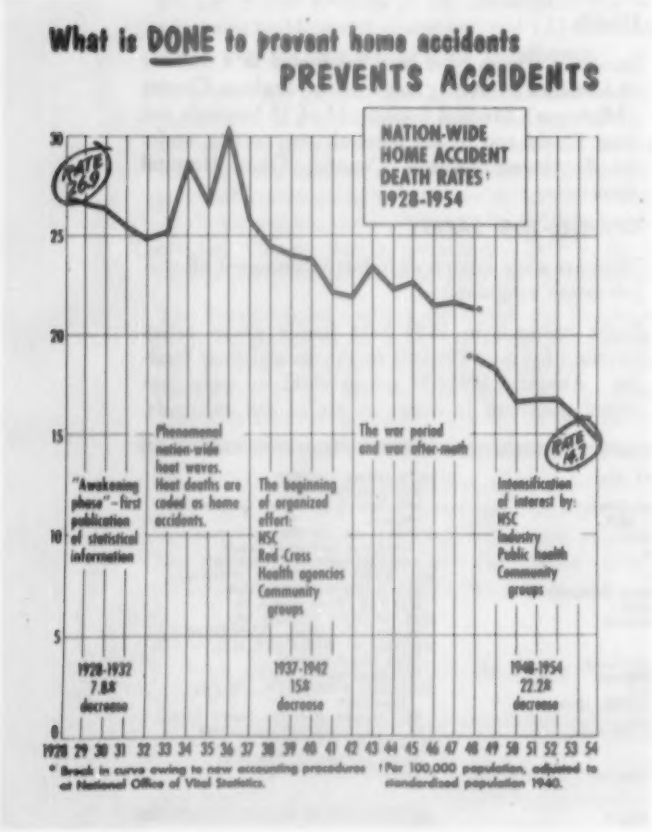
DONALD M. HIGGINS, Director
Health and Safety Services
Boy Scouts of America
RICHARD HUDSON
Skytop Engineering Company
RALPH JOHNSON, Director
Research Institute
Nat. Assn. of Home Builders
MISS ELIZABETH KASEY, Safety Con.
Safety and Occupational Health Bur.
Metropolitan Life Ins. Co.
ROBERT H. KOTTE, M.D.
American Academy of Pediatrics
JOSEPH M. LANGE, Executive Editor
Practical Builder
JAMES T. LENDRUM, Director
Univ. of Illinois Small Homes Council
RALPH K. LONGAKER, Chief
Home Accident Prevention Activities
U. S. Public Health Service
NICHOLAS L. MACZKOV, Supervisor
of Technical Services
Am. Radiator & Stand. Sanitary Corp.
H. MARCHMONT-ROBINSON, M.D.
American Academy of Gen. Practice
MRS. MARJORIE B. MAY, Dir.
Home Safety Division
Greater New York Safety Council
MADELEINE E. MORCY, M.D.
Regional Medical Director
U. S. Children's Bureau
MISS IRENE L. MUNTZ
Home Service Director
Rochester Gas and Electric Company
ANDREW PLACE, President
Place Construction Company
TYLER S. ROGERS
Technical Consultant
Owens-Corning Fiberglas Corp.
C. M. ROWLEY, Chief Engineer
Am. Mfgrs. Mut. Ins. Co.
MISS ROSEMARY SCHAEFER, Chrm.
Home Safety Committee
American Home Economics Assn.
C. GEORGE SEGELER
Engineer of Utilization
American Gas Association
THOMAS SHERIDAN
Staff Vice President
U. S. Savings & Loan League
MISS JAYNE SHOVER
Associate Director
Nat. Society Crippled Children and Adults
JOHN C. THORNTON, Chairman
Committee on Human Safety
American Institute of Architects
MISS RUTH TUCKEY, Dir. of Nurses
Community Nursing Service
Oak Park - River Forest, Ill.
MRS. GEORGE WELLES, JR.
St. Louis Co., Minn., Safety Council
GEORGE M. WHEATLEY, M.D.
Third Vice President
Metropolitan Life Ins. Co.
MISS AVIS WOOLRICH, Housing
Specialist
Bur. Human Nutrition Home Econ.
U. S. Department of Agriculture
MISS MARY MAY WYMAN, Supvr.
Safety and Special Education
Louisville Public Schools

One corporation head reported the following results of an off-the-job safety program:

"Our Corporation has established a new all-time safety record for all of its operations during the year 1954. I personally feel that our off-the-job safety program, including home safety committees, has been responsible in part for this new safety record just established."

A chemical company, which had developed an off-the-job program on a trial basis in 1953, found the results so gratifying that they enthusiastically adopted the program in 1954 as a permanent and continuing part of their program. Results were found to accrue as follows: (1) There was a noticeable improvement in the on-the-job injury performance (nearly 40% better); (2) There was a 20% improvement in the off-the-job injury performance.

A family safety program was directed to all the local employees of an aircraft manufacturing company. The number of employees directly involved was about 38,000. The program was thus extended into homes in two or three dozen different communities. In addition to the 38,000 employees, the program affected a minimum of 75,000 to 115,000 persons (based on two to three additional persons in each family). There was a total of more than 265,000 separate home mailings, comprised of seven mailings per family, spread out over a period of one year.


What is DONE to prevent home accidents
PREVENTS ACCIDENTS
NATION-WIDE HOME ACCIDENT DEATH RATES* 1928-1954
RATE 26.9
RATE 19.7
"Awakening phase"—first publication of statistical information
Phenomenal nation-wide heat waves. Heat deaths are coded as home accidents.
The beginning of organized effort: NSC Red Cross Health agencies Community groups
The war period and war after-math
Intensification of interest by: NSC Industry Public health Community groups
1928-1932 7.8% decrease
1937-1942 15% decrease
1948-1954 22.2% decrease
30
25
20
15
10
5
0
1928 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54
* Break in curve owing to new accounting procedures at National Office of Vital Statistics.
† Per 100,000 population, adjusted to standardized population 1940.

"HOME OF SAFETY"

In 1955, the Cleveland Press sponsored the building of a second Home of Safety, which embodied over 50 specific built-in safety features. Over 50,000 visitors inspected this home. In addition to the coverage given locally, the story was syndicated and reached some 3,000,000 other newspaper readers in the United States and Canada.

LAWN MOWER INSTITUTE

Accidents with power lawn mowers have become more frequent with their wider use. While the number reported to the Council was not great enough to draw any definite conclusions, it did indicate primary accident causes and trends. A discussion of this growing problem was held with representatives of the Lawn Mower Institute. As a result of the discussion, the Institute is sponsoring a committee on power lawn mower safety with the American Standards Association. They have also developed a safety instruction pamphlet for dealer distribution to power lawn mower users.

BLASTING CAPS

The Institute of Makers of Explosives has been actively engaged through the years in conducting a National Blasting Cap Safety Program. The program has been very successful as blasting cap accidents have been reduced from a high of 344 in 1929 to less than 100 accidents during each year from 1947 through 1952. However, in 1953 there were 132 children injured in blasting cap accidents, and 189 in 1954. As a result, the Institute has intensified its efforts to obtain wider distribution of a poster, study discussion sheet, and safety film.

STAFF AND BUDGET

Six staff members are assigned to the Home Division. In addition, time spent in behalf of Home Safety by staff personnel in other units was equal to about one and a half times that number of people. Money to finance the Council's Home safety work in 1954 came from the following sources:

Home publication sales, Congress, etc...	$ 27,000
General contributive funds allocated by the Trustees	43,000
Grant for Home Safety	15,000
Home Income	$ 85,000
Other Funds allocated by the Directors..	51,000
Home Expense	$136,000

Farm Safety

Vice President for Farms
GUY L. NOBLE
Managing Director, National Committee
on Boys & Girls Club Work

"Despite the problems and setbacks in farm safety work, it is most heartening to look back over the 11-year history of organized farm safety and review the progress and achievements of the movement from its first beginnings. In scarcely more than a decade, farm safety has grown from groping infancy to knowing adulthood. Today, problems are still with us and setbacks no doubt will continue to occur from time to time. But the visible proof of progress and the challenge of work yet to be done push the problems into the background and we look to the future of farm safety with more optimism than ever."

—G. L. Noble

Accidents killed 14,000 farm residents and injured 1,200,000 in 1954. Motor vehicle accidents accounted for 5,900 of the deaths. Work accidents accounted for another 3,800 deaths and home accidents killed 3,500. The death rate per 100,000 farm residents dropped from 63.9 in 1953 to 61.7 in 1954.

ORGANIZATION

National. The National Conference for Farm Safety held three meetings during the year to consider technical problems and map out programs of promotion and education. The Conference gave special attention to plans for education in tractor safety and child welfare. Five new members were added to the Conference. They are: C. M. Ferguson, U. S. Department of Agriculture; Ward Hodge, Michigan Farm Bureau; Boswell Stevens, Mississippi Farm Bureau; E. W. Tanquary, International Harvester Co.; and F. R. Willsey, Purdue University.

State. Five states organized new farm safety committees during the year, bringing the total number of states with organized committees to 35. States with newly-formed committees are New York, Maine, Kentucky, New Jersey and Maryland. As in older state committees, membership of the new committees is made up of top-ranking representatives from agricultural organizations such as the Grange, Farm Bureau Federation, Extension Service, Farmers' Union, youth groups, rural women's organizations, equipment companies, and others. A bi-monthly newsletter now is distributed to all state committees.

FARM CONFERENCE
1954-1955

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Power Machinery Division
Minneapolis-Moline Company

VICE CHAIRMAN
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Extension Service
U. S. Department of Agriculture

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National Safety Council

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College of Agriculture
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Nat'l Retail Farm Equip. Assn.
HERSCHEL NEWSOM
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Head, Dept. Agr. Engineering
Univ. of Minnesota
CHARLES SHUMAN
President
American Farm Bureau Federation
W. T. SPANTON
Federal Security Administration
U. S. Office of Education
ARTHUR STAPLE
Fox Valley Cooperative
Appleton, Wisconsin
OTTO STEFFEY
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Illinois Agricultural Assn.
BOSWELL STEVENS
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Mississippi Farm Bureau Fed.
W. E. STUCKEY
Ohio Rural Electric Coop.
RANDALL C. SWANSON
Farm Safety Specialist
Univ. of Wisconsin
E. W. TANQUARY
International Harvester Co.
F. R. WILLSEY
Farm Safety Specialist
Dept. of Agr. Engr. Ext.
Purdue University
DAWSON WOMELDORFF
Public Service Co. of Northern Ill.
CHARLES WORCESTER
Radio Station WMT
Cedar Rapids, Iowa
CARLTON ZINK
Products Research Dept.
Deere & Company

MATERIALS

Projects and activities engaged in by the staff during the year included:

- *Production of the 1957 Farm Safety Calendar
- *4-H Leaders' Handbook for Safety
- *Materials for Spring Cleanup packets
- *Articles for farm press
- *Promotion of progress toward a uniform electric fence code
- *Two new filmstrips: "Take My Word For It," and "Setups for Upsets"
- **Farm Safety Review* (changed to monthly publication schedule)
- *Rural Women's newsletter, "Yours For Safer Farm Families"
- *Statistical survey—"Tractor Accidents in 1954"
- *Publication of five new safe-farm-practice leaflets: Is Your Farm Safe for Your Children?, Safety With Pesticides, Stop That Picker!, Avoid Tractor Upsets, Rural Community Accident Reporting.

FARM SAFETY INSTITUTE

The 10th annual National Institute for Farm Safety was held June 13-16 at Michigan State College. Full-time workers in farm safety from Arkansas, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Mississippi, Missouri, New York, Ohio, Pennsylvania, Nebraska and Wisconsin, as well as a number of guest participants, enrolled for the four-day session. The program included new developments in farm safety and detailed reports of projects and programs being carried out in the various states represented.

NATIONAL FARM SAFETY WEEK

The 12th annual National Farm Safety Week, jointly sponsored by the Council and the U. S. Department of Agriculture, was observed during the week of July 24-30. Employing the theme "Your Safety is in Your Hands," this year's campaign appealed to farm residents to accept personal responsibility for their own safety.

The 1955 Farm Safety Week campaign saw a more widespread and extensive observance than in any year in its history.

Twelve thousand program kits were distributed to County Extension Agents and other agricultural leaders in every state.

Radio, press and television coverage of the week included: 45 radio and television network programs; 1,004 local broadcast mentions or salutes; 606 stations requested Farm Safety Week transcriptions; 96 TV stations requested Farm Safety Week films; newspapers and magazines requested a total of 4,500 mats; and the Advertising Council reported 550 requests for 2,040 mats.

RURAL HIGHWAY SAFETY

The "Lite-Farm-Equipment" project, a national campaign to put reflective lighting materials on unlighted farm machinery driven or towed on public highways, began its second year of operation. The project is sponsored jointly by the state farm safety committees and the Farm Division of the National Safety Council. A majority of state farm safety committees are now sponsoring the program. The project is designed to supplement the efforts of manu-

NATIONAL COMMITTEE FOR FARM SAFETY . . . provides sponsorship and develops adequate, permanent support for the Council's work in farm safety. To constantly broaden the base of support for farm safety, the Committee is seeking the cooperation and assistance of such additional groups as feed manufacturers, dairy manufacturers, meat packers, petroleum and insurance companies.

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Goodyear Tire & Rubber Co.

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President
Kansas Farm Bureau

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United States Steel Corp.

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Illinois State Grange

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CAP MAST
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Agricultural Leaders' Digest

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Master
National Grange

G. L. NOBLE
Managing Director
Nat. Comm. on Boys and Girls Club Work

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J. I. Case Company

R. S. STEVENSON
President
Allis-Chalmers Manufacturing Co.

CHARLES SHUMAN
President
Illinois Agricultural Assn.

OTTO STEFFEY
President
Illinois Agriculture Assn.

A. E. SPOTTKE
Vice President
Allstate Insurance Co.

P. O. WILSON
Secretary-Manager
National Livestock Producers Assn.

facturers and implement people in getting more adequate lighting on farm equipment used on highways. The Farm Conference cooperated in the formulation of uniform lighting equipment for farm machines in use on highways after dark.

OTHER ACTIVITIES

Farm safety activities included appearances on television programs by staff members, participation in outside professional meetings and conventions, speaking engagements before various farm groups, development of an accident survey plan and assistance in developing rural electric standards.

The staff spent 182 days in 42 states, assisting farm safety committees, fostering formation of additional committees and aiding agricultural extension, vocational education and youth groups.

Awards in recognition of outstanding contributions to farm safety were made to the following organizations and individuals: press, 19; radio, 26; television, 3; organizations and companies, 18; individuals, 20.

STAFF AND BUDGET

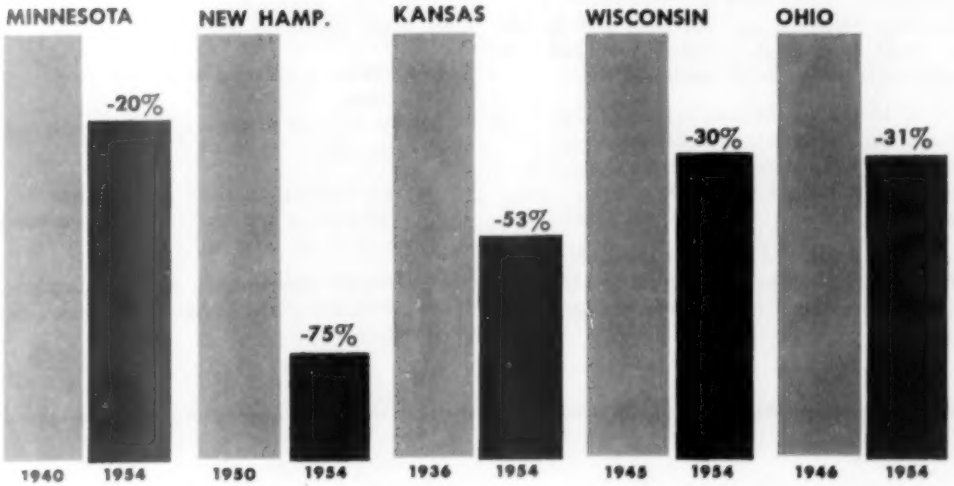
Additions of three persons to the Farm program staff (making a total of eight) enabled the Farm Division to begin work on new programs in farm safety and afforded an increase in much-needed field work. Substantial time was spent on behalf of farm safety promotion and education by staff members of the Public Information Department which handles all radio, press, and TV, including the Advertising Council. Other supplementary help was provided by staff members of the Membership and Service Departments, Statistical Division, the Library and other units handling office-wide functions.

Publications and service income in 1954 totaled $37,000. See pages 6-7 for additional details on income and expenses. This amount included income from *Farm Safety Review*, other publications and from materials for reflectorizing farm equipment used on highways after dark. The *Farm Safety Review* publication, with a circulation of more than 27,000 reaches an important list of active farm safety leaders which includes agricultural extension workers, agricultural engineers and farm equipment dealers.

NEEDS

- *Increased efforts in the development of additional youth work.
- *Development of materials for more frequent use of TV publicity.
- *Exhibits and visual aids, demonstrations.
- *Additional research in various phases of farm safety.
- *Increase supply of films and film strips for educational use.
- *More cooperation with state farm safety specialists.
- *Develop additional contacts and cooperation with commercial organizations.

FARM ACCIDENT REDUCTION IN FIVE STATES



Community and State Organizations

"Any important community endeavor must be organized to enable people to work together toward agreed-upon and clearly stated objectives. To the extent that official agencies and groups of business, labor, and civic leaders in the states and communities work together in an organized manner to combat accidents, further substantial reductions in accidents can be achieved."

—Robert R. Snodgrass

Vice President for
Local Safety Organizations
ROBERT R. SNODGRASS
President, Atlas Auto Finance Co.

THE CONFERENCE

The Conference of Local Safety Organizations is made up of representatives of each of the state and community Chapters of the National Safety Council. It provides a link between the National and local councils throughout the nation, a means of establishing policies and exchanging information on such problems as organization, administration, finances, and programs.

FIELD SERVICE DEPARTMENT

In 1955 the Department of the Council concerned with local safety organizations was reorganized and expanded. Now called the Field Service Department, it consists of: (1) the field staff of the Traffic Inventory Division, (2) the field staff of the former Field Organization Department; and (3) five additional professional employees.

A total of 15 professional employees (specialists in traffic and community safety organization) are now employed in the Field Service Department. There are an additional eight clerical employees. Total budget of the Department in 1955 was $260,000.

The chart on pages 40-41 show deployment of the present field staff in eight geographical districts. As funds permit, further expansion of field service is planned.

A two-week intensified training program for Department personnel was held in Chicago in May of 1955 and an additional week of training was given in October.

FUNCTIONS OF THE DEPARTMENT

The Field Service Department has these major functions:

1. Work with state and local officials in connection with the Annual Inventory of Traffic Safety Activities (discussed on page 15).
2. Assist existing local citizens organizations with all aspects of their programs.
3. Work to develop new local safety organizations.

Service relating to state and community organizations include:

- Development of plans and doctrine on safety organization and methods based on continuous exchange of information.
- Personal representation by trained staff to assist in initiating and carrying out state and local efforts.

STATUS OF LOCAL ORGANIZATION

Chapters of the National Safety Council. There are 62 Chapters with full-time staff operating in cities of over 50,000 population. There are nine state Chapters and two Chapters in Canada. There are nine Chapters in smaller communities, including those with part-time management.

The 80 U.S. Chapters in 1954 employed a total of 240 full-time staff. Their aggregate income was over $1,500,000.

Other Local Organizations. In addition to Chapters a total of 159 local safety organizations are affiliated with the Council. These are chiefly volunteer organizations (no paid staff) in smaller communities. They regularly receive Council services and publications.

An additional 235 community safety organizations, primarily traffic groups in smaller communities, though not affiliated with the Council, were reported active as of January 1955.

- *Administrative publications, to make organizational and program information widely available.
- *Training and program publications and aids, to assist state and local organizations to perform their functions.
- *Training institutes and other training for local organization personnel.

In performing these and other services, the field staff maintains close and cooperative contact with regional, state, and local units of other national organizations interested in accident prevention. The staff also works in close cooperation with other Council departments.

OPERATING PRINCIPLES

1. State and communities vary widely in accident problems, in awareness of problems, and in their accident prevention programs. However, it is generally recognized that traffic accidents are a principal problem. Therefore the Field Service Department regards the Annual Inventory of Traffic Safety Activities as a major means of serving communities and states.

2. While state and local officials have legal authority and primary responsibility for public safety measures, their work requires public approval and support. Also there must be a continuous program of public education. These requirements can best be met by a citizens safety organization which will reinforce and broaden the accident prevention work of official agencies.

MAJOR ACTIVITIES

Apart from the recruitment, training, and deployment of the field staff, a major undertaking of the reorganized Field Service Department has been extensive studies to identify characteristics associated with success or failure of safety organizations. These studies were the basis for a series of Field Service Memoranda covering fundamental doctrine for successful organized safety work in communities and states.

These memoranda were reviewed by groups of local managers in a series of regional meetings, and then distributed to the managers and presidents of all Chapters for consideration and application in terms of local needs.

The National Institute for Safety Organization Administrators (conducted by the Field Service Department) was continued in 1955 with a program offered in New Haven in January under the joint sponsorship of the Council and Yale University.

Managers of safety organizations in the Eastern area attended the Institute which closely paralleled the one held in cooperation with Northwestern University in June 1954. It is planned that training opportunities for local managers will be extended on a regional basis in 1956.

The Inventory of Chapter Operations, a major project of the Conference for Local Safety Organizations, was advanced during the year with reports on organization structure, financial procurement, administration and program being prepared by the Chapters. The Inventory of school programs, a new activity, was compiled by 54 Chapters.

The Conference of Local Safety Organizations in October recommended that a special committee of the Board of Directors be appointed to:

1. Explore problems involved, and develop practical ways to increase financial support for organized accident prevention.
2. Develop methods for bringing members of the Boards of Directors and Trustees into closer relationship with the Chapters; and enlisting Board support in achieving greater participation of business and civic leaders in the affairs of the Chapters.
3. Confer with principal leaders of national organizations interested in the establishment and upgrading of local and state safety organizations, and endeavor to bring about a unified national policy and plan of action.

The Board Committee was duly appointed, and has made substantial progress on these assignments.

NATIONAL SAFETY COUNCIL CHAPTERS

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Robert B. Leopold, Managing Director

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John P. Rostmeyer, Exec. Secretary

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John J. Booth, Manager

Caddo Bossier Safety Council (Shreveport)
M. B. Chastain, President
Col. Charles E. Doerler, Managing Dir.

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Citizens Safety Council of Hillsborough County (Fla.)
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Carl H. Roch, Executive Secy.

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Carl L. Smith, Exec. Vice Pres. and Secy.

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George P. Dawson, Exec. Secy.

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Sherburne Prescott, Chrm. of Board

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Stanley G. Peck, Director

Kansas City Safety Council
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Dudley Andry, Manager

Middletown Safety Council
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Safety Council, Dayton Chamber of Commerce
Carl H. Margraf, Chairman
Marvin Purk, Manager

Safety Council Div., Automobile Club of R. I.
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Reyburn Hoffmann, Secy.-Manager

Safety Council of Greater Youngstown
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Safety Council of Western Massachusetts
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Victor J. Mari, Exec. Director

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Newell C. Townsend, Manager

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Walter D. Ladd, Manager

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Iver C. Larson, Exec. Vice President

San Joaquin County Safety Council (Calif.)
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Mrs. Lovilla Lalor, Exec. Secy.

Santa Clara County Chapter (Calif.)
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David N. Kaye, Exec. Secretary

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William A. Feathers, Managing Dir.

Sioux Falls Safety Council
Helmer Horick, President
Henry S. Foss, Jr., Exec. Secy.

Spokane Area Safety Council
Gus Niemen, President
E. M. Gearhart, Jr., Mng. Dir.

Twin Cities Area Safety Council
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Gerald W. Shipman, Director

Vancouver Traffic & Safety Council
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James Plaskett, Exec. Secy.

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Harry H. Brainerd, Exec. Mgr.

Worcester County Safety Council
Andrew B. Holmstrom, President
John W. Greene, Manager

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Howard S. Stutchbury, Managing Dir.

Connecticut Safety Commission
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J. James Ashton, Manager

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Ohio State Safety Council
Henri Marc, President
H. G. J. Hays, General Manager

Utah Safety Council
Myron J. Fulrath, President
G. Ernest Bourne, Exec. Secy.

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J. A. Mooney, Chairman
Charles Hopkins, Managing Director

CLASS B CHAPTERS

Bismarck Safety Council, Inc. (N. D.)
Spencer C. Boise, President
J. N. Stocker, Exec. Secy.

Bridgeport Safety Council, Inc.
Alfred W. Haynes, President
Harmon E. Snoke, Secretary

Broome County Safety Council (Johnson City, N. Y.)
Robert H. Austin, Chrm. of Trustees
Mrs. I. M. McCumber, Exec. Secy.

Greater Endicott Safety Council
Russell Whitman, President
Mrs. Harriet Reinhart, Exec. Secy.

Safety Council Div., South Bend Assn. of Commerce (Ind.)
E. O. Prange, Chairman
Eli D. Miller, Manager

Saginaw Safety Council (Mich.)
Donald B. MacDonald, President
J. Scotty Wallace, Exec. Secy.

Sioux City Safety Council
Edwin L. Lunde, President
Elmer S. Swenson, Secretary

Toledo Safety Council
Msgr. N. M. Shumaker, Pres.
Leon H. Shaffer, Manager

Utica Safety Council
Robert F. Gilmour, Chairman
Vincent R. Corrou, Exec. Secy.

CLASS C CHAPTERS

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George W. Gilbert, Manager

Evanston Safety Council (Ill.)
Elmer F. Way, President
Mrs. J. W. Cook, Jr., Secy.

Rahway Safety Council
Herbert C. Cannon, President

Superior and Douglas County Safety Council, (Wis.)
Al Murray, President
Miss Elizabeth M. Billmayer, Secy.

Public Information

"It is no mystery to me that the National Safety Council does a standout job in selling itself and safety to the media, and thence to the public. The Council has enlisted the editors, radio and TV people, and advertisers into a voluntary and energetic corps of press agents for safety. The result is that the Council, dollar for dollar, gets the biggest public relations and publicity play for its money of any organization I know."

—Boyd Lewis

Vice President
for Public Information
BOYD LEWIS
Vice President and Executive
Editor, NEA Services, Inc.

The Public Infirmation program of the National Safety Council serves all fields of accident prevention. Many of the details of these activities are included in the reports of the program divisions on other pages. Highlights of the broad Public Information program, cutting across all Council activities, are set forth here.

SPECIAL EMPHASIS CAMPAIGNS

Holidays — Full-scale public education campaigns were conducted during the Christmas and Fourth of July holiday periods. A feature of the Christmas campaign was the Safety Cartoon Project, in which 160 of the nation's top editorial newspaper cartoonists devoted cartoons to holiday safety. Emphasis also was given to Memorial Day, Labor Day and New Year's holidays.

Farm Safety — National Farm Safety Week, co-sponsored by the U. S. Department of Agriculture, was held July 24-30. A proclamation by President Eisenhower launched the intensive promotion through newspapers, farm publications, radio and TV, posters and national advertisers.

S-D Day — The Council cooperated actively in this unique project to concentrate mass traffic accident preventive effort on a single day, December 15, sponsored by the President's Committee on Highway Safety.

The Congress — The National Safety Congress was the occasion for focusing public attention on all phases of safety, with 153 network radio-TV broadcasts and salutes, 1,092 local broadcasts, 31 advance news stories, 150 speech abstracts, and 300 follow-ups.

GENERAL RADIO-TV

Radio Recordings — Four new transcription services were prepared, with requests from radio stations ranging from 606 to 1,465.

TV Film Spots — Requests for seven new TV films ranged from 98 to 400. In addition, 12 monthly slides were distributed.

Radio Script Services — Six regular script and spot announcement services were maintained, devoted chiefly to traffic, child and home safety.

PUBLIC INFORMATION CONFERENCE 1954-1955

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BOYD LEWIS

VICE CHAIRMAN
MISS JUDITH WALLER
Director Public Affairs and Education
National Broadcasting Company

SECRETARY
PAUL JONES
Director Public Information
National Safety Council

FRANK ATWOOD
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Ntl. Assn. TV and Radio Farm Dirs.
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General Executive Editor
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National Editorial Association
BARRY FARIS
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International News Service
CHARLES W. FERGUSON
Senior Editor
Reader's Digest
HARRY FERGUSON
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United Press
ROBERT FUOSS
Executive Editor
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W. EARL HALL
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New York Journal and American
MISS ELINOR HILLYER
Service Coordinator
Women's Home Companion

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Chicago Board of Education
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Associate Editor
Better Homes & Gardens
MISS LAURA LANE
Associate Editor
Better Farming
WALTER LAW
Director of Radio and TV Clearance
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Publisher
The American Weekly
Puck—The Comic Weekly
MRS. CLARA SAVAGE LITTLEDALE
Editor
Parents' Magazine
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Managing Editor
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SIG MICKELSON
Vice President
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ROBERT SAUDEK
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JOHN F. WHEDON
Vice President
Young & Rubicam, Inc.
ALLAN M. WILSON
Vice President
The Advertising Council, Inc.

GENERAL PRESS SERVICES

News — Full coverage was given to Council activities and to newsworthy developments in the safety field, such as the monthly summary of traffic deaths.

Features — Wide acceptance was given to the annual Odd Accident story, which was sent with drawings to all Sunday newspapers and feature outlets.

Other features were developed for direct distribution, and as exclusives with news feature syndicates.

Cartoons — The Council continued its policy of sugar-coating the safety pill whenever possible by distributing humorous cartoon mat features. The "Highway Zoo" cartoon feature proved popular with newspapers, with 1,371 orders. Two others, one on occupational safety and the other on child safety, are in progress.

NATIONAL MAGAZINES

Interest in safety by national magazines remained at a high level, due in large measure to the stimulation and help of the Council. Eighty of the nation's foremost editors attended a Council luncheon in the Waldorf-Astoria in New York in February. More than 86 safety articles appeared in leading national magazines during the year.

TRADE JOURNALS

An energetic program of publicity on newsworthy developments in occupational safety and off-the-job activities was carried out in trade and business publications. Announcement of new Council materials and training aids resulted in inquiries which developed many new memberships for the Council.

HOUSE ORGANS

A mailing list of 2,000 company publications was serviced regularly with safety material, features and cartoons. A special feature during the year was an offer of photostats of historic posters from National Safety Council files, including the first issued by the Council in 1915. A total of 1,843 prints were sent out on direct requests.

AWARDS

A fertile source of publicity on a national and hometown basis was the various award programs of the Council. Full coverage was given winners in all safety fields. The Public Information Department's own awards — the Public Interest Award — was bestowed on 241 newspapers, radio-TV stations and networks, magazines, advertisers and outdoor advertising companies. In addition, nine Alfred P. Sloan Awards honored the outstanding contributions to highway safety in the radio-TV field.

COUNCIL MAGAZINES

The 13 magazines published by the Council increased their circulation about 7 per cent to a total of about 1,200,000 subscribers.

POSTERS, ART, CALENDAR

About 350 new poster designs were produced. A new service of 3½′ x 10′ cloth banners was inaugurated. The Department supervised the creation of 12 calendar paintings and produced and administered the monthly safety contest on the reverse sides of the pages.

THE ADVERTISING COUNCIL

In the tenth year of the "Stop Accidents" campaign conducted by The Advertising Council for the National Safety Council, home impressions resulting from radio-TV allocations carried by sponsored programs led all of the 18 public service campaigns in 1954. Four newspaper kits, ordered by 4,100 newspapers, and magazine ads stressed the theme "Careless Driving Is Kid Stuff." Car cards totaled 86,216 and outdoor posters 15,125.

Women's Activities

"Women's concern in accident prevention in its broadest sense covers all safety fields, for every woman has the hope and desire for a better home in a better community for her family. This means a higher and *safer* standard of living, working and recreation for every member of the family. And women know that the greatest impetus comes through working *together* toward a goal.

"The establishment of a Woman's Conference is recognition by the Council of the contribution women have made and the even greater contribution that they can make in the future. Awareness of the problem, its best possible solution, and action are the three facets of good safety programs. Until every American woman is informed and active in the safety crusade, women's work will not be done."

—Marion E. Martin

Vice President for Women's Activities
MARION E. MARTIN
Commissioner, Department of Labor and Industry, State of Maine

Greater participation in community accident prevention programs on the part of women's and parents' groups is being stimulated through the regular flow of safety information which these organizations are increasingly requesting from the Council.

In the past 12 months alone, 27 groups of regional, state, district or local units, ranging numerically from 12 to 750 in size, have requested and are receiving monthly mailings of Council materials which are designed to assist these groups in developing projects on home accident prevention, baby sitter safety, bicycle safety programs, and other traffic accident prevention programs.

CAROL LANE AWARDS

In October, for the fourth consecutive year, winners in the 1955 Carol Lane Awards will be presented during the National Safety Congress. A grant project, the Carol Lane Awards are giving recognition to individual women, and also the women's or parents' groups, for outstanding traffic safety programs.

Among the programs which have received honors in the past four years . . .

A city-wide pedestrian safety program of seven months, which included an official pedestrian safety count in the down-town area, a block distribution of 20,000 leaflets to individual families, and talks to more than 30 civic clubs.

A vehicle-check program of one month on a county-wide basis, which included abundant newspaper coverage, distribution of leaflets, door-to-door and telephone canvassing, churches contacted and talks before civic clubs, in which 3,106 citizens voluntarily brought their cars for inspection in 100 degree-plus weather.

A year-long public educational safety program based on monthly traffic themes, which included regularly arranged radio talks, consistent newspaper publicity, a safety parade, exhibits, posters and a slogan contest.

A rural mailbox turnout program on state highways in Florida, for rural letter carriers, in which more than 50 turnouts were constructed, which could also serve as safe stopping places for school buses.

A many-sided traffic program which helped raise the standards of city and county traffic courts, included speed control on county roads, pedestrian safety for children in and around schools, in-service training for school bus drivers, and a survey on the employment of civilian school crossing guards and what other cities were doing about it.

The organizing of a community-wide bicycle safety project on the recommendation of the chief of police, which emphasized bicycle safety education on a three-point basis: the child, the parents, and the school.

The arousing of the interest of fellow townspeople to the importance of police problems by a young mother of three small youngsters, who was first impelled by righteous indignation over inadequate traffic enforcement, then becoming aware of conditions of lowered police morale, wrote a series of articles which awakened the city-fathers to a course of action.

Membership Services

Vice President for Membership
ROBERT T. ROSS
Manager, Employee Services
Ford Motor Company

"The Safety Movement continues its steady growth as can be seen by the fact that hundreds of business firms, organizations, and individuals have newly enrolled in the Council this past year. Council membership today stands at an all-time high. Yet I am confident that through the vigorous activities of Council members and Council staff the safety movement shall continue to grow, as more and more individuals and companies avail themselves of the Council's ever-expanding safety services."

—Robert T. Ross

The Council's Membership Department has the important functions of obtaining new members, providing suitable services keyed to the needs of each member, informing members of new Council services and their uses, and providing members with reliable information on safety equipment through sale of advertising and exhibit space.

KEEPING MEMBERS INFORMED

To inform members of new materials and services, and to call to their attention existing materials and services of value to them, the Service Extension Bureau mailed out 1,000,000 descriptive folders, letters, and sample copies of materials.

Several of the major Council Service Guides were revised and reissued. Service Guide 2.1 (Occupational Safety Services) was completely reorganized so that materials on a particular subject are grouped together. The length of this Guide was increased from 50 to 68 pages. Services Guide 106.1 (Motor Transportation Services) was reissued in a more colorful and expanded form. Service Guide 2.6 (Home Safety Services) was also reissued.

The Council had displays of its services and materials at 38 regional safety conferences and other meetings. Council representatives were on hand at 17 of these exhibits to personally answer questions from members and prospective members.

The staff of the Membership Service Bureau wrote a total of 21,000 letters to members concerning prices and availability of materials and on other details of membership arrangements.

GETTING NEW MEMBERS

In order to acquaint non-member organizations with Council services the Membership Extension Bureau:

- Sent 67,000 Service Guides and samples of Council materials to non-member companies.
- Sent complete membership information to over 4,000 organizations via personal letter.
- Worked closely with Council members in special campaigns to enroll large non-members.

A total of 1,966 new members were enrolled in the 12-month period ending in July, adding $70,759 in dues income. In the previous 12 months 1,433 new members with dues of $60,208 were enrolled.

Total Council membership now stands at the all-time high of 12,401 as compared to 11,867 last year. Membership dues are also at an all-time high, $1,028,018 as compared to $1,004,000 last year.

CANCELLATIONS

Membership cancellations increased slightly this past year, totalling $35,425 in dues as compared to $34,462 in 1954. The cancellation rate (dues lost through cancellations as compared to total membership dues) remained at approximately 3.4%, the same as in 1954.

SALES OF MATERIALS

The market for Council materials was further expanded in 1955:

- Circulation of Council magazines and other subscription materials generally increased over previous year.
- Orders for safety supplies (other than periodicals and other subscription items) also up: 49,482 in 1955 as compared to 47,000 in 1954.
- Total income from sales of materials increased 5% for first seven months of 1955: $1,668,963 for 1955 as compared to $1,577,897 for 1954.

SALES OF ADVERTISING & EXHIBIT SPACE

Council publications and the Congress were again in 1955 a most popular media for advertising safety equipment. Advertising in Council publications and exhibits at the Congress not only are an important source of income but are a means of keeping members informed of new developments in safety.

In the first eight months of 1955 pages of advertising in Council publications decreased slightly (625 pages as compared to 634 in 1954). But total advertising revenue, due to an increase in space rates, increased over 10% ($205,969 as compared to $186,692).

Number of exhibitors and total exhibit fees at the National Safety Congress also increased this year:

- 1955—199 exhibitors occupying 255 booths: $67,080
- 1954—187 exhibitors occupying 239 booths: $57,000

Headquarters Office

Increased personnel and volume of production required further adjustment of headquarters office facilities in 1955.

The Council leases the entire fifth floor and one-half of the fourth floor of the Mandel-Lear Building in Chicago. Formerly the fourth floor area was used for dead storage and a part was sub-leased to an outside organization.

To meet new requirements the entire fourth floor area was taken over for Council use in the early part of 1955 and was remodeled to accommodate all stock and shipping personnel and operations previously located on the fifth floor. This area was modernized to fit the operation.

Removal of stock and shipping operations to the fourth floor permitted the remodeling of 20,000 square feet of fifth floor space for office operation. A new conference room was also provided, supplementing the three rooms previously available for this purpose.

Total cost of the fourth and fifth floor improvements is approximately $185,000. This work, completed in September, 1955, relieves crowded conditions in the office generally and provides for a small degree of expansion.

RECORDS DIVISION

Growth in the volume of the Council's work and in the variety of services offered compels continuous study of office procedures and records to keep the Council responsive to the needs of the membership.

As a result of such analysis, a separate Records Division was established in March, 1955, incorporating all billing and record-keeping procedures (both dues and sales), maintenance of master addressing files, and the mechanical tabulating unit which serves all departments of the Council.

Application of mechanical methods to additional operations is under constant study, and new work is put into mechanical tabulation each year. During 1955 punch card billing is being extended to the handling of orders for miscellaneous services, and 1955 Congress Registration lists will be prepared mechanically.

Magazine subscription records required by the Audit Bureau of Circulations are also in process of mechanization, and mechanical methods will be utilized in merchandise inventory tabulations at the end of 1955.

A current goal is the use of mechanical tabulation to achieve complete coordination between addressing operations and basic membership and subscription records, resulting in elimination of time-consuming intermediate steps.

ACCOUNTING AND TREASURY OPERATIONS

Based on recommendations by the Council's auditors, treasury functions were completely separated from accounting functions in July, 1955. A staff Treasury Djvision was established, responsible for receipt and deposit of all cash and for all disbursements.
Other auditors' recommendations for the modernization and improvement of accounting and financial procedures are under way.

TRAINING PROGRAMS

Steps were taken in 1955 to improve the performance and efficiency of Council staff members through training programs.

Since the early part of the year, all new employees, both professional and non-professional, have gone through orientation programs designed to familiarize them with all phases of the Council's work. The heads of departments have personally participated in these programs.

Supervisors' training programs have also been inaugurated and will be extended to supervisory personnel at all levels. Emphasis will be placed on a complete understanding of the Council's purposes

Facilities

and program with the aim of securing continually better inter-department coordination.

The Council continued its policy of sharing tuition costs for employees who wish to take night courses in subjects directly related to their jobs.

NATIONAL SAFETY CONGRESS

Management of the National Safety Congress is a staff function which requires year-round attention. Even before one Congress is under way, plans for the following year are started.

The 1954 Congress had a registered attendance of 9,700; there were 305 separate sessions, and 750 participants. The National Safety Council also made an extensive display to Congress delegates of the Council's own materials and services.

The publishing schedule for Congress Transactions, which has been appreciably speeded up in the past three years, showed further improvement this year. Thirty-one separate Transactions volumes were published for the 1954 Congress, and 30 of these were mailed to members prior to March 1, 1955.

THE LIBRARY

The Library continually serves the membership, both through direct contact and as an information source for the many staff members who have day-to-day membership contacts and editorial responsibilities. Last year the Library answered more than 11,000 inquiries for safety information.

The Library received from Council members and others thousands of safety information items. These were indexed and filed for ready access, thus enabling the Library to maintain and enhance its reputation and usefulness as the world's greatest collection of safety information.

STATISTICS DIVISION

Adhering to the principle that successful safety programs must be based on sound information regarding the number, circumstances, and causes of accidents, the Statistics Division continued its job of collecting such information.

The Division kept its finger on the pulse of the nation's accident experience and reported its findings at frequent intervals and in a variety of ways. The Council's monthly magazines contained up-to-date accident information so that members in every field of interest—industrial, traffic, home, etc.—were able to stay abreast of accident trends and so that each was able to compare his own experience with that of others.

Accident Facts, the 96-page annual statistical report, continued as the "bible" of safety people everywhere, with its comprehensive array of table, chart, and text covering all types of accidents. 45,000 copies of the 1955 edition were printed.

The Division was responsible for the record-keeping involved in the conduct of the Council's 29 Sectional Contests, receipt and evaluation of 8,500 annual industrial accident reports, and administration of the Industrial Award Plan under which more than 2,200 awards were issued for outstanding safety records.

Records secured and tabulated by the Division were the basis of the Council's widely used press releases on monthly traffic fatality experience, as well as many special releases and forecasts.

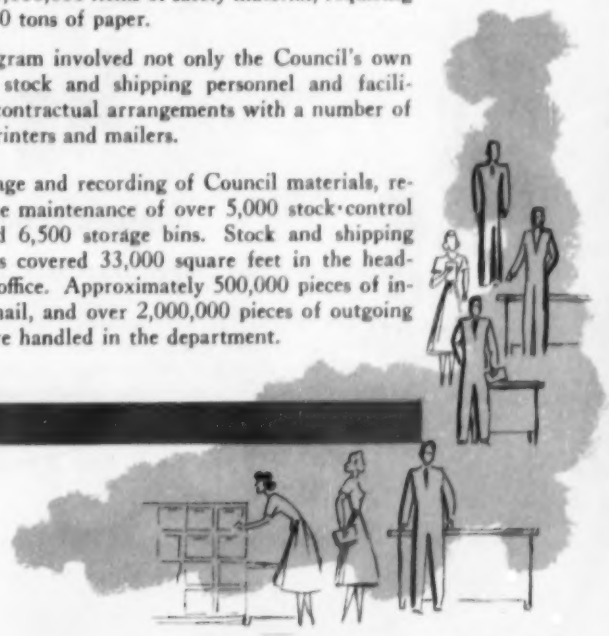
The Division undertook several special studies in 1954-55; including a detailed analysis of 9,500 fatal home accident reports made available for Council study by the National Office of Vital Statistics.

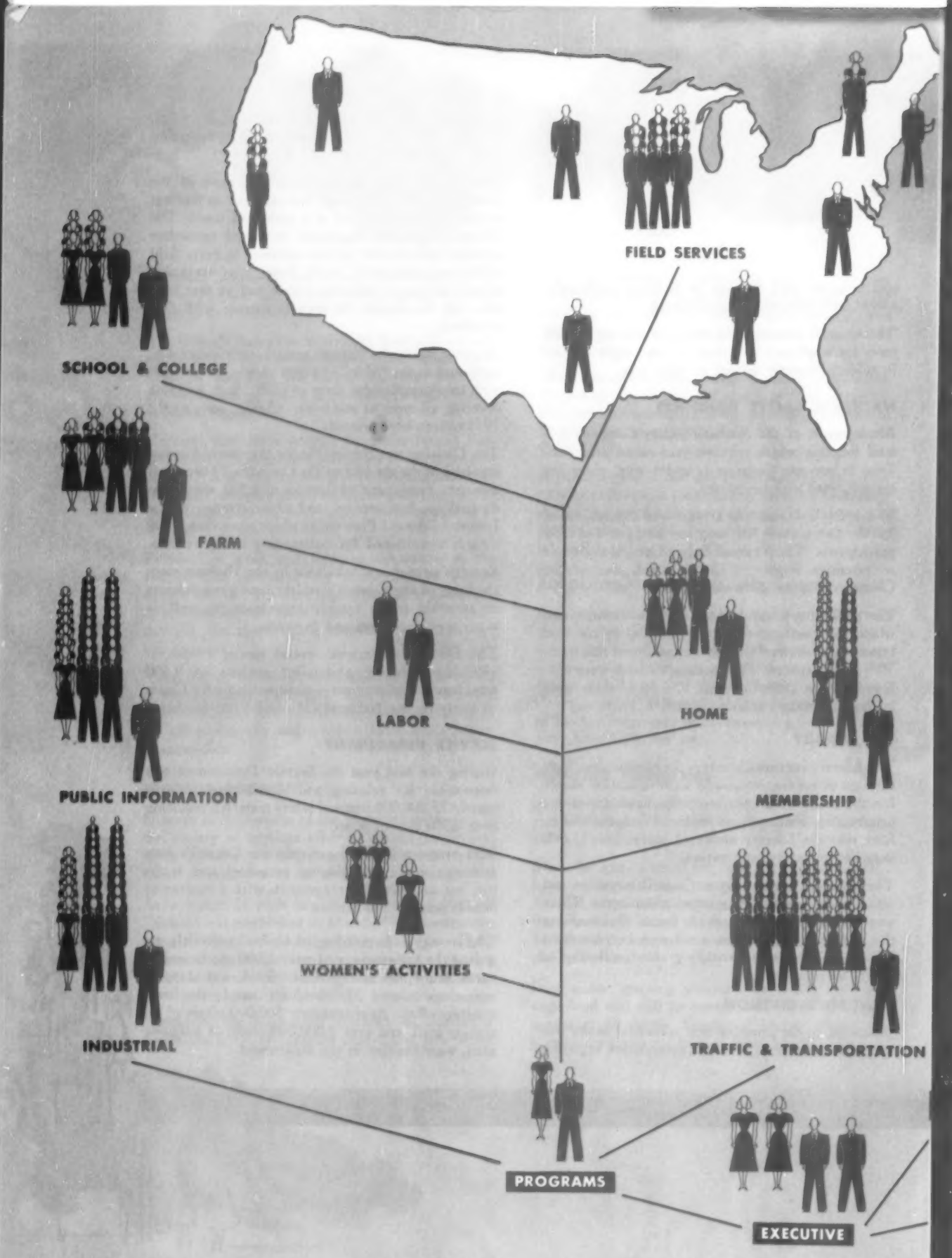
SERVICE DEPARTMENT

During the past year the Service Department was responsible for printing and distributing approximately 75,000,000 items of safety material, requiring over 1,300 tons of paper.

This program involved not only the Council's own printing, stock and shipping personnel and facilities, but contractual arrangements with a number of outside printers and mailers.

The storage and recording of Council materials, required the maintenance of over 5,000 stock-control cards and 6,500 storage bins. Stock and shipping operations covered 33,000 square feet in the headquarters office. Approximately 500,000 pieces of incoming mail, and over 2,000,000 pieces of outgoing mail, were handled in the department.




FIELD SERVICES
SCHOOL & COLLEGE
FARM
LABOR
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PUBLIC INFORMATION
MEMBERSHIP
WOMEN'S ACTIVITIES
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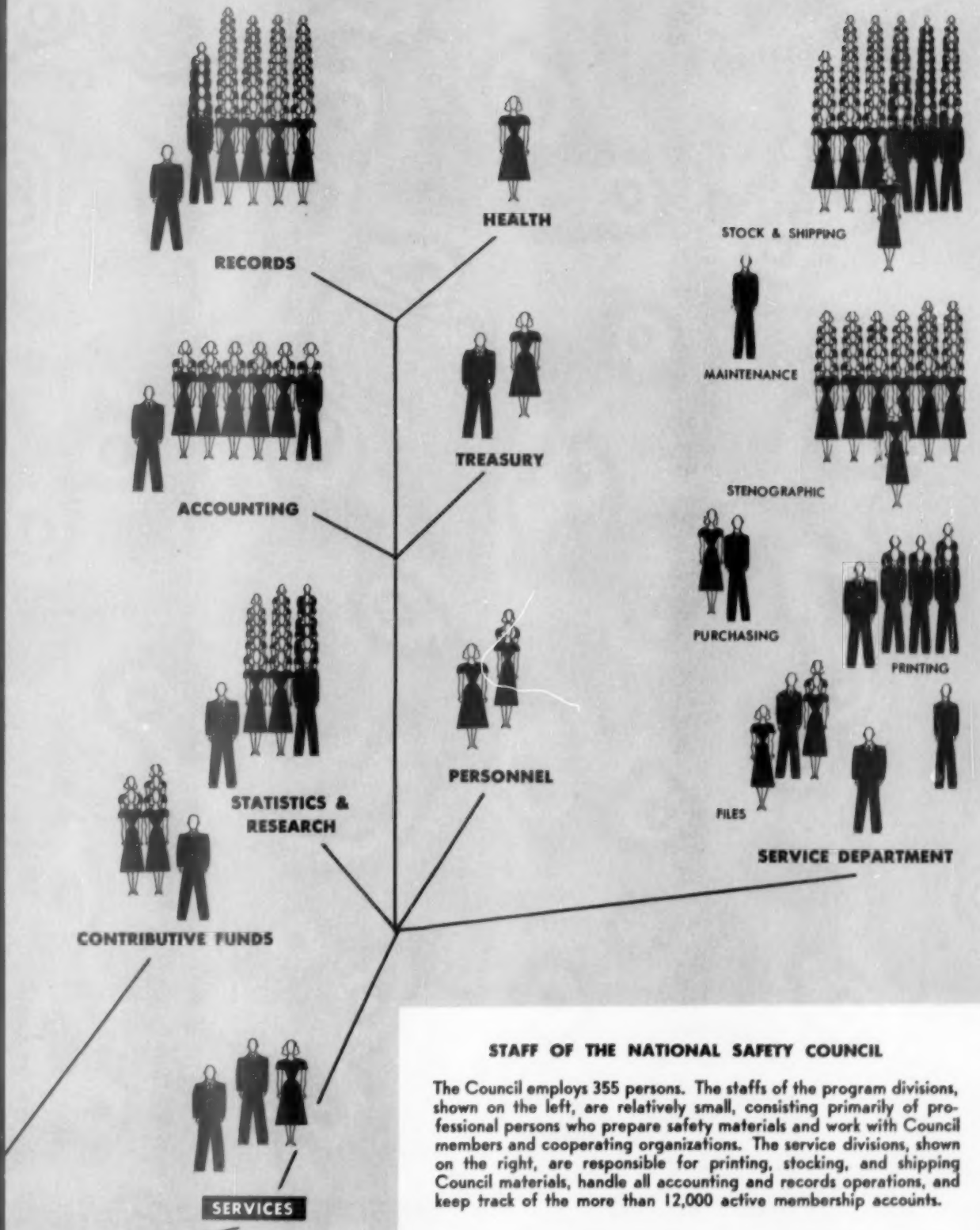
EXECUTIVE



STAFF OF THE NATIONAL SAFETY COUNCIL

The Council employs 355 persons. The staffs of the program divisions, shown on the left, are relatively small, consisting primarily of professional persons who prepare safety materials and work with Council members and cooperating organizations. The service divisions, shown on the right, are responsible for printing, stocking, and shipping Council materials, handle all accounting and records operations, and keep track of the more than 12,000 active membership accounts.

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NATIONAL SAFETY COUNCIL

425 NORTH MICHIGAN AVENUE
CHICAGO 11, ILLINOIS

A NON-PROFIT ORGANIZATION DEDICATED TO ACCIDENT PREVENTION
FOUNDED 1913 • CHARTERED BY CONGRESS 1953